STATE GEOLOGICAL SURVEY OF KANSAS

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Chancellor of the University, and ex officio
Director of the Survey

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BULLETIN 107

OIL AND GAS DEVELOPMENTS IN KANSAS DURING 1953

By

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

Printed by Authority of the State of Kansas
Distributed from Lawrence

UNIVERSITY OF KANSAS PUBLICATIONS
SEPTEMBER 1954

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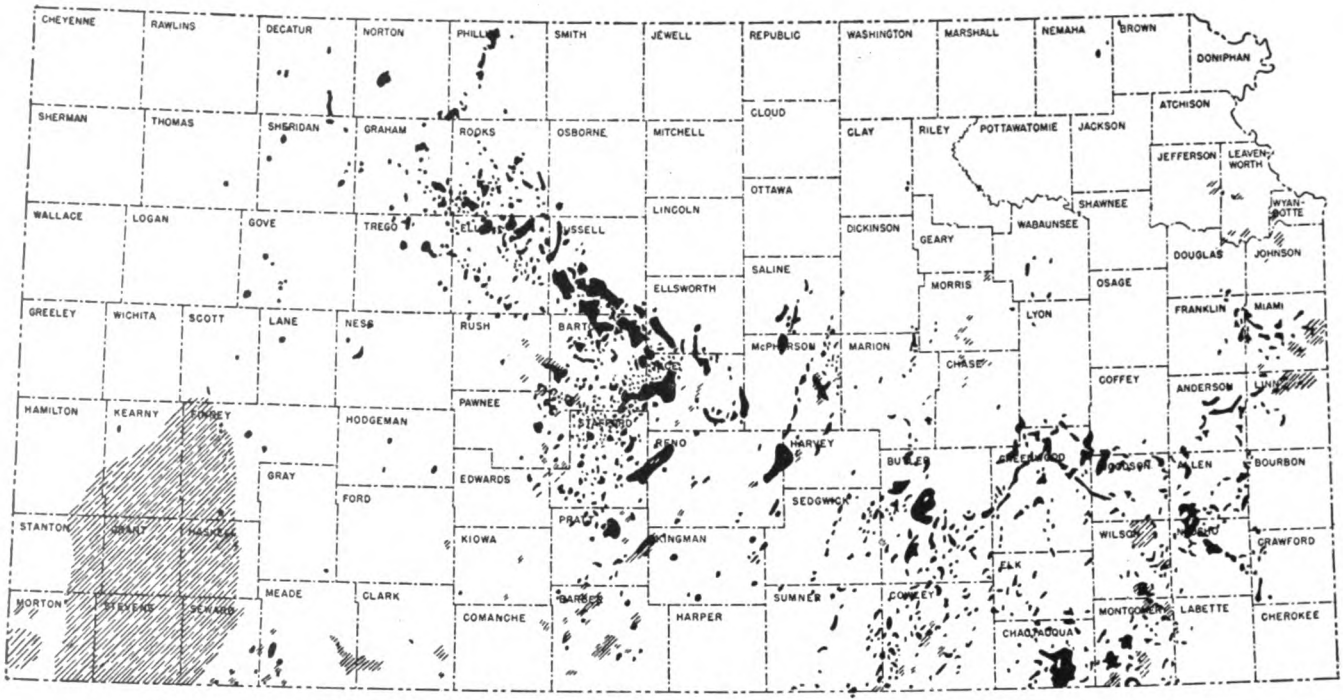


FIG. 1.—Index map of Kansas showing oil and gas producing areas.

OIL AND GAS DEVELOPMENTS IN KANSAS DURING 1953

By

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

ABSTRACT

Kansas oil production in 1953 totaled 114,390,176 barrels, which was 9,380 barrels less than the 1952 production. In value the 1953 output of crude oil increased to $307,632,164 from $294,006,859 in the preceding year, mostly because of an increase in price.

Natural gas production in Kansas reached an all-time high of 420.6 billion cubic feet (14.65 psia.); the Hugoton Gas Area produced 387.6 billion cubic feet, 92 percent of the State's total.

During the year 165 new oil pools and 22 new gas pools were discovered, far exceeding discoveries for any previous year. Three previously abandoned oil or gas pools were revived.

Development of the Greenwood gas field in Morton County and the discovery of the Norton pool in Norton County highlighted the year's exploration. The addition of Comanche and Gray Counties increased the total number of past and present oil or gas producing counties to 80.

In 1953, 5,147 wells of record were drilled in 95 Kansas counties in connection with the petroleum industry. Of the recorded completions, 2,273 were oil wells, 380 were gas wells, 2,151 were dry holes, and 343 were salt-water disposal wells or wells used as input wells in connection with secondary recovery operations. Of the 2,151 dry holes, 501 were wildcats. Estimates of wells not specifically reported bring the total number of wells drilled in the State during the year to 5,814.

As in 1952, Barton County, with a production of 17,075,634 barrels, was the largest oil producer among the counties. Both Russell and Ellis Counties, ranked second and third, each produced more than 11 million barrels. The Trapp field of Russell and Barton Counties was the top-ranking field of the State with a production of more than 5.8 million barrels of oil in 1953. The State's top six oil fields, the Trapp, Kraft-Prusa, Chase-Silica, Hall-Gurney, El Dorado, and Bemis-Shutts accounted for more than 28.8 million barrels of the State's total oil production of 114.4 barrels.

In 1953, Kansas produced 211.6 million gallons of natural gas liquids valued at more than 13 million dollars. There are more than 177 million barrels of natural gas liquids as proved reserves.

The proved reserves of Kansas crude oil at the end of the year were 913 million barrels, almost 4 million barrels less than last year's estimated reserves. Proved reserves of natural gas are about 15.9 trillion cubic feet, the highest in the State's history.

Production from secondary recovery projects in Kansas accounted for 10,655,125 barrels of oil during 1953. A total of 6,444 producing wells and 5,067 injection wells was reported operating during the year. Greenwood County led all other counties in the amount of oil produced by secondary recovery methods with 4,423,653 barrels.

INTRODUCTION

During 1953 many new records were established in the diverse phases of the Kansas petroleum industry. New highs were attained in the number of wells drilled, the number of new oil and gas pools discovered, and in the production of natural gas, natural gasoline, and LPG. Crude oil production remained essentially the same as 1952, the previous high year. Because of increases in prices the dollar value of these resources exceeded all previous records.

Comanche and Gray Counties were added to the family of Kansas petroleum-producing counties, bringing the total number of Kansas counties that have or are producing oil or gas to 80. Highlighting the 1953 activity along with this development was the enlargement of the Greenwood gas area in Morton County, the discovery of a sizable oil field in central Norton County, and the revival of interest in shallow production in eastern Kansas, brought on by the success of hydraulic fracturing of pay zones. Several new "Bartlesville" and "Layton" sand zones were opened in Cowley County. Much attention was given to areas in Pawnee and Pratt Counties.

Once again Stafford County led all other counties in the number of new pool discoveries with 19 oil pools. Other counties with a large number of new discoveries are: Barton 17 oil, 1 gas; Ellis 17 oil; and Rooks 14 oil.

Crude oil production was maintained at approximately the same rate as 1952, the peak year, in spite of temporary shut-in of production in October, by order of the Kansas Corporation Commission, because of the lack of market demand and the accumulation of an excessive amount of crude above ground.

Natural gas production increased 2.9 percent over the 1952 high, while the production of natural gas liquids increased 7.7 percent. Proved reserves of natural gas in Kansas increased 11.2 percent, while the proved reserves figure for the nation increased 5.9 percent.

Figure 1 shows in a general way areas in Kansas 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 pools. The map is useful, however, in showing county

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

A condensed petroleum data table (Table 2) shows at a glance the trends of the various phases of the industry in Kansas, as well as corresponding trends in the United States. Comparison of the two right hand columns of Table 2 shows whether or not Kansas is holding its own in the nation's petroleum industry.

Production and value.—Production of crude oil in Kansas during 1953, 114,390 thousand barrels, is about 9 thousand barrels less than the previous high year of 1952. The average price of Kansas crude oil during the first six months was $2.57 per barrel. Effective June 15, 1953, the price of crude in the mid-continent region was raised 0.25 dollars per barrel. Our value of Kansas crude during 1953, $307,632,134, is arrived at by applying the price of $2.57 per barrel to the 59,792,530 barrels of crude for the first six months of the year, and the price of $2.82 to the 54,597,646 barrels reported for the last six months of 1953. Thus the 4.6 percent increase in value of crude oil over the 1952 figure does not reflect increased production, but a price rise.

Natural gas production during 1953 increased to a new high, more than 420.6 billion cubic feet calculated at the base of 14.65 pounds per square inch absolute. This represents an increase of 2.9 percent over the previous year's high figure. The value of the Kansas natural gas production was estimated by the Kansas Corporation Commission, Conservation Division, as almost 37.7 million dollars. The Commission estimated the average price paid by the pipe-line companies during the calendar year as 9.5 cents per thousand cubic feet, taking into consideration the redefinition of the cubic foot of gas to 14.65 psia, which was effective July 1, 1953. Previously, natural gas from the Hugoton Gas Area, which produces 92 percent of the State's total production, and gas from other parts of "western Kansas" was given a minimum value of 8 cents per thousand cubic foot at 16.4 psia. However, the estimated average value during 1952 was 9 cents per thousand cubic feet; this figure was applied to all Kansas natural gas production, including minor amounts of unprorated production, much of which probably brought a higher price. Thus the increase in value of natural gas during 1953 over the previous year is due to (1) an increase of 0.5 cent per thousand cubic foot in

TABLE 2.—*Petroleum data table showing percentage changes for Kansas and the United States, 1952-1953*

	Kansas figures 1952	Kansas figures 1953	Kansas percentage change	United States percentage change
1. Crude oil production (barrels)	114,399,556[1]	114,390,176[1]	— 0.1	+2.4
2. Value of crude oil produced	$294,006,859	$307,632,164[2]	+ 4.6	.....
3. Kansas crude production as percentage of U.S. total	4.1	4.8	— 5.8	.....
4. Average price of crude	$2.57	$2.689	.....	.....
5. Rank of Kansas among oil-producing states	5th	5th	.....	.....
6. Proved reserves of liquid hydrocarbons (at year end), barrels	1,085,216,000[3]	1,091,069,000[3]	+ 0.5	+3.6
7. Ratio of proved liquid hydrocarbon reserves to current annual production	9.0:1	9.5:1	+ 5.5	.....
8. Oil producing area of "western Kansas"[4] counties (acres)	598,490	650,262	+ 8.7	.....
9. Natural gas production, M cu. ft.	408,732,836[5]	420,588,383[5]	+ 2.9	+6.9
10. Value of natural gas produced	$32,860,740[6]	$37,680,408[6]	+14.7	.....
11. Production of natural gasoline and LPG (natural gas liquids), gallons	196,461,804[1]	211,656,648[1]	+ 7.7	+6.3
12. Value of natural gasoline and LPG	$12,023,205[7]	$13,047,307[7]	+ 8.5	.....
13. Proved reserves of natural gas, millions of cubic feet	14,193,565[8]	15,787,602[8]	+11.2	+5.9
14. Ratio of proved natural gas reserves to current annual production	34.3:1	37.4:1	+ 9.0	.....
15. Gas producing area of "western Kansas" (acres)	2,502,200	2,611,530	+ 4.3	.....
16. New oil and gas pools discovered	167[8]	187[8]		
17. Recorded well completions in Kansas				
Oil	2,396[9]	2,273[9]		
Gas	305[9]	380[9]		
Dry	2,045	2,151		
Salt-water disposal	387[10]	343[10]		
Unrecorded, estimated	———	667[11]		
Total recorded and estimated	5,136	5,814		
Wildcats and discovery wells (included in above total)	725	688		

[1] Figures supplied by Kansas Corporation Commission, Conservation Division.

[2] Value for 1953, $2.57 bbls. first 6 months; $2.82 bbls. last 6 months.

[3] Figures from American Petroleum Institute and American Gas Association, 1952. Barrels have 42 U.S. gallons and gas is based at 14.65 psia. at 60° F.

[4] The petroleum area of "western Kansas" is taken to include all producing counties west of the Cowley-Butler-Marion-Dickinson County tier.

[5] Figures supplied by Kansas Corporation Commission, base 14.65 psia.

[6] Natural gas from Hugoton Gas Area and other parts of "western Kansas" was estimated at 9 cents per M cubic feet during 1952 (16.4 psia.). The estimate for 1953 was 9.5 cents per M cubic feet (16.4 psia. first 6 months and 14.65 psia. second 6 months).

[7] This aggregate figure is based on unit values of the several products that reflect wholesale prices at the plant.

[8] Omitting revived pools.

[9] Includes pool wells and new discoveries.

[10] Includes salt-water disposal and recorded secondary recovery input wells.

[11] Counties for which number of wells drilled in 1953 are all or in part estimated include Allen, Anderson, Chautauqua, Coffey, Crawford, Elk, Franklin, Labette, Linn, Miami, Montgomery, Neosho, Wilson and Woodson.

the price estimate, and (2) an increase in volume through a reduction in the base measurement pressure.

In the general gas production table, where individual pool data are given, the 1953 production and cumulative figures are calculated at the pressure base of 14.65 pounds per square inch absolute. Relatively, a very small amount of gas is now produced in the shallow "eastern Kansas" gas pools.

Effective January 1, 1954, a new minimum price of 11 cents per thousand cubic feet measured at 14.65 pounds per square inch absolute has been set for the Hugoton Gas Area in Kansas by the State Corporation Commission.

Kansas production of natural gas liquids during 1953, 211.7 million gallons, set a new record in value also, more than 13 million dollars. This 1953 production exceeded the previous high year by 7.7 percent while the national increase was slightly less, 6.3 percent.

The total value of Kansas raw products of the petroleum industry (crude oil, natural gas, and natural gas liquids) produced in 1953 was 358.3 million dollars, which was a new record, exceeding the previous high year, 1952, by almost 20 million dollars.

The production of carbon black was reported to be 69,985,475 pounds valued at $3,207,600. Carbon black production in Kansas has been decreasing steadily during the past few years.

Barton County continued to be the largest oil producer in the State. Table 3 shows the seven largest producing counties during 1953. One notable change from the previous 3 years is that Butler County exchanged rank with Rice County, moving from fifth, to fourth. In individual field production (Table 4) the 38-year-old El Dorado field of Butler County moved from sixth place to fifth, replacing the Bemis-Shutts field of Ellis County. The Trapp field of Russell and Barton Counties maintained its position as the

TABLE 3.—*Largest oil producing counties in Kansas during 1953*

Rank	County	Producing wells	Producing acreage	Total production, barrels
1	Barton	3,143	111,612	17,075,634
2	Russell	2,886	79,830	12,583,124
3	Ellis	1,726	56,740	11,164,383
4	Butler	3,403+	66,370	8,615,810
5	Rice	1,734	67,420	8,477,552
6	Rooks	1,141	39,360	7,016,581
7	Stafford	1,209	56,590	6,874,805

TABLE 4.—*Largest oil producing fields in Kansas during 1953*

Rank	Pool	Age, years	County	Total production, barrels
1	Trapp	18	Russell-Barton	5,881,840
2	Kraft-Prusa	17	Barton-Ellsworth	5,575,643
3	Chase-Silica	23	Rice-Barton-Stafford	5,507,155
4	Hall-Gurney	23	Russell-Barton	4,569,899
5	El Dorado	38	Butler	3,891,884
6	Bemis-Shutts	19	Ellis	3,447,828

leading individual field in the State. Annual oil production of Kansas since 1890 is shown graphically in Figure 2. A summary of oil produced, imported, used, and exported during 1953 is given in Table 5.

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. Where possible, production from zones has been differentiated. Totals for each county are given so that comparisons can be made. Where oil or gas 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.

Special attention has been given this year to dividing the natural gas production from the Hugoton Gas Area into county totals. This bulletin marks the first time that such individual county figures have been available. Table 13 gives the 1953 gas production, and cumulative production for each of the nine Hugoton gas-producing counties. The number of wells now producing

TABLE 5.—*Summary of oil produced, imported, used, and exported in 1953*
(From the Conservation Division, Kansas Corporation Commission)

	Barrels of oil
Produced	114,390,176
Imported	21,970,185
Total	136,360,361
Exported	48,730,676
Refined and used in Kansas	87,629,685
Total	136,360,361

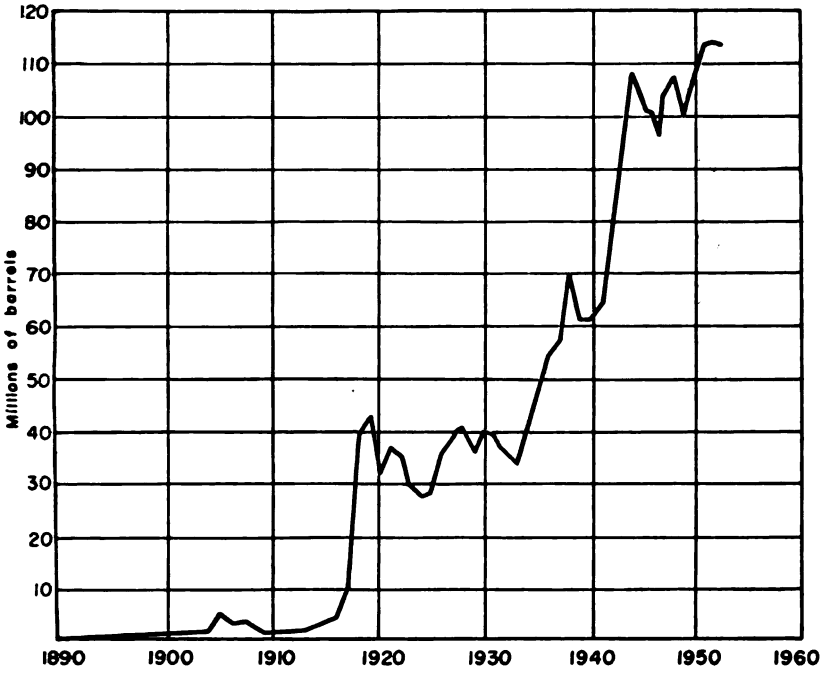


FIG. 2.—Annual oil production in Kansas from 1890 to 1953.

and the year in which gas was first discovered are given in Table 57. Basic data on production from the Kansas portion of the Hugoton Gas Area have been made available through the cooperation of the Kansas Corporation Commission and Dwight's Hugoton Gas Report.

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

Reserves.—Kansas proved reserves of liquid hydrocarbons (crude oil plus natural gas liquids) as of December 31, 1953, were 1,091.1 million barrels. This represents an increase of 0.5 percent, while the national trend increased 3.6 percent. Kansas proved reserves of crude oil were estimated to be 913.3 million barrels (API-AGA, 1953, p. 9) at the end of 1953. This represents a decrease in the estimate of crude oil reserves of 3.7 million barrels.

Proved reserves of natural gas in Kansas at the end of 1953 were estimated by the Reserves Committee of the American Gas Association to be 15.8 trillion cubic feet, an increase of 11.2 per-

cent. Kansas proved reserves of natural gas liquids, 177.7 million barrels, increased the 1952 estimate by 5.6 percent. All estimates of reserves are taken from the American Petroleum Institute and American Gas Association's annual report on reserves.

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 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 (Pl. 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 during 1953 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 5 years, a bulletin on the oil and gas developments in eastern Kansas. Bulletin 104 by John Mark Jewett, pubished in 1954, 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 1953, 165 new oil pools and 22 new gas pools were discovered in Kansas. Three previously abandoned oil pools were revived during the year. Of the 168 new and revived oil pools, 9 were carried on the scout reports as dry and abandoned, while 13 of the pools were combined with other pools. Stafford County had 19 new oil pools discovered, Barton County 17 oil and 1 gas, Ellis County 17 oil, and Rooks County 14 oil.

The new pool discoveries are listed in Table 6. The number of new oil and gas pools discovered during 1953 far exceeds any previous record. During 1953, Comanche and Gray Counties were

TABLE 6.—*New oil and gas fields discovered in Kansas during 1953*

County, pool, and location of discovery well	Discovery well	Producing zone	Production depth, feet	Month of discovery	Initial production per day, bbls.
Barber County					
Nurse NE NE 23-31-13W	Champlin Refg. Co No. 1 Nurse	"Doug. sand"	3,599-3,603	Mar.	4,035,000 cu. ft. gas
Roundup NW NE 28-33-11W	Barbara Oil Co. No. 1 Forester	Mississippian	4,486-4,497	Dec.	163 bbls. oil 926,000 cu. ft. gas
Roundup South SE NE 33-33-11W	San Diego Corp. No. 1 Harbaugh	Mississippian	4,457-4,495	Dec.	Shut-in gas
Skinner Southwest SW NE 1-32-15W	Isern Brothers No. 1 Skinner	Douglas	4,082-4,094	Dec.	2,192,000 cu. ft. gas
Barton County					
Bieberle North SW NW 33-18-11W	The Texas Co. No. 1 Schlochtermeier (Now part of the Bieberle field).	Lans.-K.C.	3,156-3,162	Jan.	3,000
Buckbee South SW NW 23-20-12W	Lewis Drlg. Co. No. 2 Johnson (Old well worked over)	Arbuckle	3,373 (top)	Dec.	10
Clarence NE SE 35-19-15W	Schermerhorn Oil Corp. No. 1 Merton	Lans.-K.C.	3,291-3,295	July	13
Converse NE SW 20-20-15W	Sunray Oil Corp. No. 1 Converse	Arbuckle	3,783-3,829	Sept.	3,758,000 cu. ft. gas
Ess SW SW 13-19-14W	Petroleum, Inc. No. 1 Essmiller "C"	Lans.-K.C.	3,326-3,335	May	206
Fleske SW NW 3-20-15W	Harms & Knight Drlg. Co. No. 1 Fleske	Lans.-K.C.	3,470-3,474	Mar.	192
Great Bend Townsite SW SE 21-19-13W	Honaker Drlg. Co. No. 1 Esfeld	Arbuckle	3,441-3,445	Dec.	318
Hampel NW NW 34-17-15W	Northern Pump Co. No. 1 Hampel	Arbuckle	3,544-3,549	Mar.	D & A
Hawkins Northwest SE NW 33-18-13W	Murfin Drlg. Co. No. 1 Byers	Arbuckle	3,428-3,434	Nov.	452
Hiss Northeast SE NW 29-20-13W	Graybol Contracting Corp. et al No. 2 Murphy	Lans.-K.C.	3,326-3,363?	July	1,309
Koopman NE NE 23-19-13W	Hanlon-Boyle, Inc. No. 1 Koopman	Arbuckle	3,398-3,409	May	114
Moses NE SW 13-20-14W	Petroleum, Inc. No. 1 Moses "A"	Lans.-K.C.	3,322-3,334	Dec.	35
Pendergast SW NE 27-19-15W	Schermerhorn Oil Corp. No. 1 Pendergast	Lans.-K.C.	3,397-3,402	May	106
Red Brick SW SW 23-19-13W	J. A. Terteling & Sons No. 1 Cole	Lans.-K.C.	3,240-3,247	Aug.	76
Sunnyside NE SW 33-20-11W	Buick Drlg., Inc. No. 1 Metz	Lans.-K.C.	3,186-3,190	May	D & A
Thill SW NW 28-19-11W	Pabco Drlg., Inc. No. 1 Thill (Now part of the Anton field)	Lans.-K.C.	3,216-3,220	Feb.	313
Weikert SE SE 36-18-12W	E. J. Fatzer & C. W. Boxberger No. 1 Weikert	Lans.-K.C.	3,169-3,176	June	266
Zimmer NW SE 28-19-15W	Great Bend Brick & Tile Co. No. 1 Werhahn	Arbuckle	3,631-3,646	Mar.	D & A
Butler County					
Fox-Bush West NE NE 15-29-5E	Rex & Morris Drlg. Co. No. 1 Young	"Bartlesville"	2,837-2,848	Dec.	30
Long Northeast SW SW 11-26-7E	Rex & Morris Drlg. Co. No. 1 Marshall	Mississippian	2,753-2,758	July	25
Mt Tabor NE NW 36-29-4E	Stelbar Oil Corp. No. 1 Stolebarger	"Bartlesville"	2,757-2,765	Sept.	25
Clark County					
Harper Ranch NW SE 9-34-21W	United Producing Co., Inc. No. 1 Harper	Morrowan	5,437-5,469	June	6,000,000 cu. ft. gas

TABLE 6.—*New oil and gas fields discovered in Kansas during 1953, continued*

County, pool, and location of discovery well	Discovery well	Producing zone	Production depth, feet	Month of discovery	Initial production per day, bbls.
Coffey County					
Finnerty NW SW 12-21-13E	F. E. Lockhart & George Waite No. 1 Finnerty	"Burgess"	1,728-1,739?	June	38
Comanche County					
Robbins Ranch NE NW 23-31-16W	Barbara Oil Co. No. 1 Robbins	Mississippian	4,915-4,930	Feb.	6,000,000 cu. ft. gas
Cowley County					
Burden East SW NW 33-31-6E	The Texas Co. No. 1 C. F. Jarvis	K.C. ("Layton")	2,194- ?	Apr.	80
Cedarvale NE SE 9-34-8E	C. K. Gilliland No. 1 McEwen	Mississippian	2,365-2,375	June	15
Centennial SW NW 12-33-3E	Laura Jane Oil Co., Inc. No. 1 Allen	"Bartlesville"	3,267-3,271	Apr.	25
Centennial North NE SW 1-33-3E	K. T. Wiedemann No. 1 Shane	"Bartlesville"	3,256-3,270	Dec.	10
David Northwest NE SE 10-31-4E	McNeish & Gralapp No. 1 O'Hara (Now part of the David field).	"Bartlesville"	2,936-2,950	June	50
Enterprise Southwest NE NE 3-34-3E	Drillers Production Co., Inc. No. 1 Godfrey	"Bartlesville"	3,360-3,370	May	42
Maddix NW NW 13-33-5E	Wentworth & Sons No. 1 Maddix (Abandoned during 1953)	Mississippian	3,084-3,091	Jan.	8
School Creek North SE NE 10-32-7E	Fred Ayesh & Frank Taylor No. 1 Beamer	"Layton"	2,114-2,200	Aug.	25 bbls. oil 2,000,000 cu. ft. gas
Silver Creek NW SW 12-32-5E	McNeish & Gralapp et al. No. 1 Miller	"Bartlesville"	3,050-3,058	Feb.	75
Stayton South SE NW 5-33-4E	Laura Jane Oil Co., Inc. No. 1 Hoornbeck	"Bartlesville"	3,165-3,188	June	234
Wiebe NW NW 28-31-6E	The Texas Co. No. 1 O. H. Wiebe	"Layton"	2,220-2,226	Nov.	3,200,000 cu. ft. gas
Decatur County					
Pollnow NW SW 4-3-29W	Anderson-Prichard Oil Corp. No. 1 Pollnow	Lans.-K.C.	3,734-3,741	Apr.	75
Pollnow West NE SW 5-3-29W	M. B. Armer No. 1 Schultz	Lans.-K.C.	3,744-,3,750	Nov.	244
Edwards County					
Embry NW SW 23-24-16W	Branine-Holl No. 1 Embry (Old well worked over)	Lans.-K.C.	3,789-3,793	Mar.	16
Enlow NE NW 9-24-16W	Natural Gas and Oil Corp., No. 1 Enlow	Lans.-K.C.	3,736-3,743	Nov.	379
Ellis County					
Braun NW SW 34-13-16W	The El Dorado Refg. Co. No. 1 Braun "D"	Penn. basal congl.	3,459-3,466	Nov.	240
Cochran SE NW 8-11-18W	National Cooperative Refinery Assn., No. 1 Cave	Lans.-K.C.	3,328-3,338	Jan.	182
Degenhart NW SW 15-15-17W	The Bay Petro. Corp. No. 1 Degenhart	Lans.-K.C.	3,417-3,425	Aug.	126
Dinkel SW NE 23-13-17W	Alpine Oil & Royalty Co., Inc., No. 1 Dinkel	Lans.-K.C.	3,430-3,434	Apr.	18
Dreiling Southeast SE SE 27-14-16W	Transit Corporation No. 1 Berens	Lans.-K.C.	3,072-3,078	Jan.	300
Ellis Northeast SW NE 32-12-20W	Doley Oil Co. No. 1 Huber "B"	Arbuckle	3,853-3,859	Aug.	30
Erbert NW NW 20-12-20W	Natl. Coop. Ref. Assn. No. 1 Erbert	Arbuckle	3,906 (top)	Aug.	146
Holy Cross SE SE 26-12-18W	Carl Lebsack Oil Production Co., No. 1 Holy Cross	Lans.-K.C.	3,423-3,427	Mar.	186
Irvin South (revived) SE SW 8-14-19W	Lewis Drlg. Co. No. 1 Riedel (7-14-19W)*	Arbuckle	3,837-3,849	Feb.	181
Kraus North SE NE 16-14-19W	United Drlg., Inc. No. 1 Kraus	Arbuckle	3,801-3,813	Sept.	168

Leiker East SW SW 12-15-18W	Don E. Pratt No. 1 Brock	Arbuckle	3,576-3,589	Sept.	170
Leiker Northwest NW SE 10-15-18W	Francis Oil & Gas, Inc. No. 1 Wassinger (Now part of the Leiker field)	Arbuckle	3,588-3,595	July	445
Reichert NW NE 9-15-19W	Victor Drlg., Inc. No. 1 Reichert	Lans.-K.C.	3,423-3,430	July	11
Schmeidler Northwest SE SE 20-12-17W	V. D. Sidey Drlg. Co. No. 1 Schmeidler	Arbuckle	3,696-3,702	Sept.	30
Turkville SE SW 11-11-17	The Derby Oil Co. No. 1 McComb	Arbuckle	3,359 (top)	Apr.	52
Victoria North SE SE 6-14-16W	Victor Drlg., Inc. No. 1 Dreiling	Arbuckle	3,471-3,478	Jan.	9
Wheatland Northwest SE SE 12-15-18W	Don E .Pratt. No. 1 Stecklein	Arbuckle	3,566-3,572	May	45
Wheatland Southwest SW SW 19-15-17W	Peel-Hardman Oil Producers, No. 1 Dumler	Arbuckle	3,554-3,563	Mar.	331
Ellsworth County					
Lorraine North SW NW 12-17-9W	Petroleum, Inc. No. 1 Janzen	Lans.-K.C.	3,066-3,071	Sept.	50
Finney County					
Damme Northeast NE NE 16-22-33W	D. R. Lauck Oil Co., Inc., No. 1 Graves	Mississippian	4,639-4,649	Sept.	147
Finnup NE NW 34-22-33W	W. L .Hartman No. 1 Finnup	Mississippian	4,756-4,762	Aug.	434
Finnup East SW SW 25-22-33W	W. L. Hartman No. 1 Holsted-Thomason	Marmaton	4,442-4,458	Dec.	232
Ford County					
Helmers NE SE 25-28-21W	M. B. Armer No. 1 Helmers	Mississippian	5,024-5,040	Jan.	5,682,000 cu. ft. gas
Graham County					
Cooper North NW SW 33-9-21W	Jones, Shelburne & Farmer, Inc. No. 1 Frazier	Arbuckle	3,905-3,914	Jan.	392
Diebolt NE SE 33-10-23W	Imperial Petro. Co., Inc. No. 1 Diebolt	Lans.-K.C.	3,779-3,785	Sept.	505
Montgomery NW NE 8-8-23W	Jones, Shelburne & Farmer, Inc. No. 1 Montgomery	Lans.-K.C.	3,504 (top)	July	D & A
Morel Northwest NE SE 7-9-21W	Peel-Hardman Oil Producers, No. 1 Cooley	Arbuckle	3,786-3,788	Apr.	386
Nana NE SE 4-8-24W	S. A. Berwick Drlg. Co., Benson-Montin, & Brooks Hall, No. 1 Nana Neal	Lans.-K.C.	3,738-3,746	Nov.	234
Noah East SW NW 26-10-21W	Trans-Era Petroleum, Inc. No. 1 Holzhuer	Arbuckle	3,703-3,707	Sept.	132
White Southwest SE NE 35-10-21W	Harry Gore No. 1 Lewis	Arbuckle	3,688-3,695	Apr.	729
Gray County					
Jumbo SE NW 29-29-27W	United Producing Co., Inc. No. 1 Salmon	"Cherokee"?	5,103-5,111	Nov.	15
Greenwood County					
Verdigris NE NE 2-24-12E	Susmio Oil Co. No. 1 W. Jones	Mississippian	1,784-1,786	Dec. (1952)	7
Zimmermann C NW 19-23-10E	Ward A. McGinnis No. 2 Zimmermann	"Bartlesville"	2,296- ?	Jan.	25
Harper County					
Runnymede NE SE 23-31-6W	The Texas Co. No. 1 C. M. Springer	Simpson sand	4,648-4,656	May	3,800,000 cu. ft. gas
Hodgeman County					
Saw Log Creek NW SE 36-23-22W	The Atlantic Refg. Co. No. 1 Ross Hall	Marmaton	4,284-4,295	May	635
Kingman County					
Basil NE SE 16-29-7W	W. J. Coppinger No. 1 Brand	Viola	4,511-4,514	Jan.	211
Orsemus NE SW 30-29-5W	The Texas Co. No. 1 Graber	Simpson sand	4,468-4,480	Oct.	1,901
Spivey South SE NE 27-30-8W	Pickrell Drlg. Co. No. 1 Boyle "A"	Mississippian	4,297-4,397	Dec.	96

TABLE 6.—*New oil and gas fields discovered in Kansas during 1953, continued*

County, pool, and location of discovery well	Discovery well	Producing zone	Production depth, feet	Month of discovery	Initial production per day, bbls.
Lyon County					
Bradfield Northwest SW SW 13-21-10E	White & Ellis Drlg. Co. No. 1 Jones	Viola	2,522-2,527	June	25
Welch-Mohr NE SE 30-20-10E	C. L. Sheedy No. 1 Welch	"Bartlesville"	2,293-2,315	Oct.	17
McPherson County					
Groveland SE NE 10-20-4W	Anschutz Drlg. Co. No. 1 T. L. Fleming	Viola	3,728-3,736	July	157
Groveland South NW SW 14-20-4W	Anschutz Drlg. Co. No. 1 Holloway	Viola	3,719-3,725	Dec.	141
Gypsum Creek South SE NW 9-17-1W	H. & M. Drlg. Co. No. 1 Lehman	Mississippian	2,627-2,641	Oct.	25
Lively SE NE 28-19-2W	National Assoc. Petro. Co. No. 1 Lively	"Mississippi lime"	2,955-2,963	Apr.	237
Lively East SW NE 27-19-2W	George R. Hess No. 1 Akerson (Now part of the Lively field)	Mississippian	2,944-2,952	July	50
Lively South NW NW 34-19-2W	John J. Darrah No. 1 Boese (Now part of the Lively field)	Mississippian	2,951-2,960	June	108
Windom SW NE 30-19-5W	Trans-Era Petroleum, Inc. No. 1 Neal	Mississippian	3,409-3,418	Dec.	175
Marion County					
Durham NW NW 34-18-2E	Anderson-Prichard Oil Corp., No. 1 "A" Scully	Viola	2,899-2,901	Apr.	202
Edmonds SE NW 31-22-4E	K. T. Wiedemann No. 1 Edmonds	Mississippian	2,471-2,474	Mar.	25
Lehigh North NW SW 23-19-1E	Anderson-Prichard Oil Corp., No. 1 Wasemiller	Mississippian	2,770-2,775	Jan.	2,500,000 cu. ft. gas
Quarry Siding NW SW 16-19-4E	H. B. Ratzlaff et al No. 1 Groening	Mississippian	2,302-2,344	July	22
Meade County					
Bruno SW NE 20-33-30W	Columbian Fuel Corp. No. 1 Bruno Meyer "B"	Mississippian	5,698-5,716	May	138
Bruno Northeast SW NE 16-33-30W	Columbian Fuel Corp. No. 1 Armentrout "A"	Morrowan	5,721-5,731	Aug.	1,033 2,773,000 cu. ft. gas
Kismet East NW NW 30-33-30W	Columbian Fuel Corp. No. 1 Wheatley	Morrowan	5,645-5,652	Apr.	10 5,500,000 cu. ft. gas
Morris County					
John Creek NE NW 26-15-9E	Wm. Gruenerwald No. 1 Williams	Viola	3,090-3,096	Dec.	426
Nelson West NW SW 30-17-5E	Musgrove Petro. Corp. No. 1 Bura	Mississippian	2,297-2,313	Sept.	60
Morton County					
Dreyer NE SW 5-32-43W	Colorado Oil & Gas Corp. & The Superior Oil Co. No. 1 Dreyer "B"	Wabaunsee Shawnee	2,812 (top) 3,136 (top)	Dec.	4,500,000 cu. ft. gas
Greenwood South SE NW 19-34-43W	Cities Service Oil Co. No. 1 Interstate "A"	Morrowan	4,238-4,250	June	9,040,000 cu. ft. gas
Westola SW NW 5-32-42W	Colorado Interstate Gas Co. et al. No. 1 Stoops	Lans.-K.C.	3,534-3,544	Jan.	12,500,000 cu. ft. gas
Nemaha County					
Strahm East NW NW 26-2-14E	O. O. Wallace & Fred Hewitt No. 1 Edelman	"Hunton"	2,826-2,837	June	25
Norton County					
Norton SE NW 36-3-24W	Jones, Shelburne & Farmer, Inc., No. 1 Lawson	Arbuckle	3,778-3,790	June	200
Norton East SW NW 31-3-23W	Jones, Shelburne & Farmer, Inc., No. 1 Mindrup (Now part of the Norton field)	Arbuckle	3,744-3,754	Aug.	260

Norton South NW NE 1-4-24W	Harry Gore No. 1 Scott (Now part of the Norton field)	Arbuckle	3,805-3,813	Aug.	323
Ray Northwest SE NW 22-5-21W	Empire Drlg. Co. & Cranlyn Oil, Inc. No. 1 Schugart	Arbuckle	3,605-3,606	Nov.	D & A
Pawnee County					
Conkling NE SE 4-20-18W	Morrison Drlg. Co., Inc. No. 1 Harper	Arbuckle	4,020-4,024	Sept.	D & A
Dunes SE SW 22-22-15W	Westgate-Greenland Oil Co., No. 1 Smith	Arbuckle	3,956-3,980	Feb.	2,822
Dunes Southwest NE NW 33-22-15W	Westgate-Greenland Oil Co., No. 1 Koelsch	Lans.-K.C.	3,728-3,736	June	141
Evers Northeast SE NE 31-21-15W	Petroleum, Inc. No. 1 Hauser	Arbuckle	3,915-3,918	June	48
Garfield (revived) SE NW 17-23-17W	Hilton Drlg .Co., Inc. No. 2 Hutchinson Estate "B" (17-23-17W)*	Misener	4,276-4,298	Dec.	25
Hearn SW NE 35-23-15W	Natural Gas & Oil Corp. & Sinclair Oil & Gas Co. No. 1 Hearn	Lans.-K.C.	3,833-3,837	Nov.	4,000,000 cu. ft. gas
Oro SE NE 9-20-19W	M. B. Armer No. 1 Ellis	Penn. basal congl.	4,204-4,209	Mar.	651
Oro West NE SW 8-20-19W	Carl Todd Drlg. Co. No. 1 Pfenninger	Penn. basal congl.	4,124-4,136	Oct.	281
Shady Southwest SE NW 3-23-16W	Graham-Messman-Rinehart Oil Co. No. 1 Aldrich	Lans.-K.C.	3,705-3,710	Dec.	1,458
Sweeney NW NE 8-21-15W	Vickers Exploration, Ltd. No. 1 Sweeney	Arbuckle	3,792-3,818	Sept.	6,160,000 cu. ft. gas
Sweeney Southwest SE SE 7-21-15W	Graham-Messman-Rinehart Oil Co. No. 1 Dufford "A"	Arbuckle	3,808-3,822	Dec.	5,000,000 cu. ft. gas
Pratt County					
Fitzsimmons SE NW 30-27-13W	W. J. Coppinger No. 1 Fitzsimmons	Lans.-K.C.	4,068-4,071	Feb.	1,052
Frisbie East NW SE 4-26-13W	Skelly Oil Co. No. 1 Chance (Now part of the Frisbie Northeast field)	Simpson sand	4,274-4,290	May	1,772
Gereke NE SE 12-26-15W	R. W. Rine Drlg. Co. No. 1 Gereke	Viola	4,376-4,397	Nov.	3,000
Hertlein SE NW 22-28-13W	Helmerich & Payne, Inc. No. 1 Hertlein	Lans.-K.C.	3,924-3,940	July	77
Iuka-Carmi Northwest NE NW 26-26-13W	H. L. Moore No. 1 Hoener	Arbuckle	4,358-4,376	July	290
Iuka-Carmi South NE NW 19-27-12W	Schaffer Drlg. Co. No. 1 Seidel (Now part of the Iuka-Carmi field)	Simpson sand	4,302-4,316	Feb.	426
Lion NE NW 29-27-11W	Southwestern Exploration Co., No. 1 Lion	Viola	4,323-4,338	Dec.	oil
Moore Southwest NE NW 11-26-14W	Champlin Refining Co. No. 1 Henderson	Simpson sand	4,364-4,366	May	28
Reno County					
Bacon NW SW 36-23-5W	Brunson Drlg. Co., Inc. No. 1 Bacon	Mississippian	3,382-3,410	Oct.	178
Rice County					
Bell SW SE 9-21-10W	Schermerhorn Oil Corp. No. 1 Hamilton	Arbuckle	3,391-3,395	Jan.	408
Crawford SE SE 12-18-7W	E. H. Riggs No. 1 Little	Penn. basal congl.	3,194-3,201	Nov.	50
Green NE SE 14-19-6W	Graham, Messman-Rinehart Oil Co. No. 1 Green	Mississippian	3,388-3,404	Sept.	24
Munyon East SE SE 34-18-10W	Isern Brothers No. 1 Zink (Old well drilled deeper)	Arbuckle	3,274-3,284	Aug.	15
Staatz SW NE 15-18-9W	Beardmore Drlg. Co., & Oil Trading Corp. No. 1 Staatz	Penn. basal congl.	3,247-3,259	Oct.	135
Sterling (revived) SW SE 4-22-8W	Thos. H. Allan No. 1 Mayer (4-22-8W)*	Mississippian	3,385-3,397	Apr.	23

TABLE 6.—*New oil and gas fields discovered in Kansas during 1953, concluded*

County, pool, and location of discovery well	Discovery well	Producing zone	Production depth, feet	Month of discovery	Initial production per day, bbls.
Rooks County					
Allphin SW NW 33-10-20W	Continental Oil Co. No. 1 Allphin	Arbuckle	3,729-3,736	Apr.	497
Berland East NE SW 20-10-19W	The Derby Oil Co. No. 1 Berland	Arbuckle	3,778-3,782	Dec.	27
Berland Southeast SE NW 29-10-19W	Petroleum, Inc. No. 1 Dick	Arbuckle	3,755-3,760	Nov.	240
Brungardt Northwest SW NE 34-10-17W	J. F. Darby Oil Co. No. 1 Brumitt	Arbuckle	3,477-3,484	Dec.	123
Colby NE SW 27-10-17W	Trans-Era Petroleum, Inc. No. 1 Colby	Lans.-K.C.	3,384-3,386	Mar.	85
Dorr South SE SE 20-9-16W	Harold Kreuger Co. & Transit Corp. No. 1 Overholser	Toronto	3,178-3,188	Dec.	54
Ganoung NE SE 31-9-17W	Heathman & Co., Inc. No. 1 Ganoung	Penn. basal congl.	3,524-3,531	Mar.	97
Kruse Northwest SW SW 34-9-16W	Transit Corp. No. 1 Becker (Old well worked over)	Lans.-K.C.	3,200-3,206	July	22
Lynd Southeast NE SW 4-10-19W	L. B. Stableford No. 1 Ondrasek (Now part of the Lynd field)	Arbuckle	3,690-3,694	Dec.	108
Northampton Southeast NE SE 35-9-20W	Francis Oil & Gas, Inc. No. 2 Wilson "C"	Arbuckle	3,775-3,787	Nov.	3,000
Paradise Creek West NE NE 20-9-18W	Heathman & Co., Inc. No. 1 Baumgartner "B"	Arbuckle	3,594-3,607	Nov.	2,779
Williams SW NW 9-10-18W	Midstates Oil Corp No. 1 Roll Williams	Arbuckle	3,733-3,739	Feb.	487
Williams Northwest NE NW 6-10-18W	Graham-Messman-Rinehart Oil Co. No. 1 Williams	Lans.-K.C.	3,409-3,455	July	280
Williams Southeast NW NE 16-10-18W	C-G Drilling Co. No. 1 Ordway "A"	Lans.-K.C.	3,444-3,447	Aug.	22
Rush County					
Chilly Knob SW SW 18-19-17W	Barbara Oil Co. No. 1 Schraeder	Arbuckle	3,928-3,951	Dec.	D & A
Reichel NW NE 23-17-17W	Morrison Drlg. Co., Inc. No. 1 Reichel	Lans.-K.C.	3,393-3,429	Mar.	29,000,000 cu. ft. gas
Russell County					
Fossil Creek NE NE 11-14-14W	Murfin Drlg. Co. No. 1 Boxberger	"Langdon sand" (Wabaunsee)	2,341-2,347	Mar.	30
Heim NE SE 21-14-12W	Shelley-Miller Drlg., Inc. No. 1 Heim	Penn. basal congl.	3,189-3,200	Aug.	25
Saline County					
Salemsborg North SE SW 32-15-3W	J. A. Davis & J. H. Child, No. 1 Townsdin-Robinson	Maquoketa (Viola)? (Now part of the Salemsborg field)	3,392-3,396	Feb.	124
Salemsborg Northeast SW NE 5-16-3W	Phillips & Sanderson No. 1 Johnson "A"	Maquoketa (Viola) (Now part of the Salemsborg field)	3,364-3,371	Feb.	120
Salemsborg South NW SW 8-16-3W	National Assoc. Petro. Co. No. 1 Oleen (Now part of the Salemsborg field)	Viola	3,440-3,444	Apr.	199
Sedgwick County					
Cottage SW SE 19-25-2E	Carlock Oil Co. No. 1 Nickles	"Burgess"	3,004-3,010	Sept.	20
Seward County					
Blue Bell NW NW 33-34-31W	Jomilson Producers No. 1 Long	Mississippian (Chesteran)	5,959-5,965	Apr.	483,000 cu. ft. gas
Kismet Northwest NE SE 10-33-31W	Columbian Fuel Corp. No. 1 Rinehart	Morrowan	5,584-5,588	Dec.	2,300,000 cu. ft. gas
Thirty-one NE SW 18-31-31W	Helmerich & Payne, Inc. No. 1 Ellis	Morrowan	5,448-5,460	Nov.	4,925,000 cu. ft. gas
Sheridan County					
Hortonville SE NW 20-6-26W	Natl. Coop. Ref. Assn. No. 1 Hardesty	Lans.-K.C.	3,789-3,812	Feb.	64

Wessel NW NW 27-6-29W	Westpan Hydro-Carbon Co., No. 1 Wessel	Lans.-K.C.	4,092-4,096	Mar.	216
Wessel North SE SE 16-6-29W	Sauvage & Dunn Drlg. Co., Inc., No. 1 Brantley	Lans.-K.C.	4,081-4,085	Dec.	80
Sulford County					
Cephas NE NE 10-25-14W	Helmerich & Payne, Inc. No. 1 Toland	Viola	4,114-4,122	Apr.	131
Cleveland NE SE 21-23-14W	Greenland Drlg. Co. No. 1 Birdsall	Lans.-K.C.	3,690-3,697	Oct.	168
Cleveland South SE NE 28-23-14W	Greenland Drlg. Co. No. 1 Cadman	Lans.-K.C.	3,703-3,710	Nov.	7
Diamond NW NW 8-22-13W	Petroleum, Inc. No. 1 Stewart	Lans.-K.C.	3,426-3,453	Feb.	100
Green Ridge NW NE 30-23-14W	Greenland Drlg. Co. No. 1 Cadman	Lans.-K.C.	3,788-3,810	Oct.	162
Green Valley SW SW 2-23-14W	Westgate-Greenland Oil Co., No. 1 Copeland	Lans.-K.C.	3,640-3,650	Feb.	140
Hahn SW NE 21-22-13W	Sunray Oil Corp. No. 1 Hahn	Lans.-K.C.	3,610-3,615	Jan.	16
Newell SW NW 7-25-11W	Natl. Coop. Ref. Assn. No. 1 Newell	Viola	3,913-3,916	Nov.	3,000
North Star North SE NW 21-24-12W	C. H. Newell et al. No. 1 Piepmeier	Arbuckle	4,101 (top)	Dec.	D & A
Oscar South NE SE 26-22-14W	Petroleum, Inc. No. 1 Smith "J"	Arbuckle	3,817-3,819	Dec.	301
Prairie Home South SW NE 11-21-13W	Lee Phillips Oil Co. No. 1 Nixon	Lans.-K.C.	3,395-3,398	June	376
Pritchard Southeast NW NE 2-21-14W	Lee Phillips Oil Co. No. 1 Schumacher	Arbuckle	3,472-3,490	Aug.	386
Radium NE SW 7-22-14W	Birmingham-Bartlett Drlg. Co., No. 1 Smith "A"	Viola	3,775 (top)	May	D & A
Radium Townsite SE NW 5-22-14W	Westgate-Greenland Oil Co. & Sinclair Oil & Gas Co., No. 1 Estes	Arbuckle	3,852-3,872	June	1,921
Radke NW NW 25-23-14W	Westgate-Greenland Oil Co., No. 1 Radke	Lans.-K.C.	3,688-3,700	Apr.	110
Shepherd South SE NW 21-22-11W	E. H. Adair Oil Co. No. 2 Sleeper	Arbuckle	3,602-3,613	Apr.	198
Slade SE SW 23-25-12W	Natl. Coop. Ref. Assn. No. 1 Slade	Lans.-K.C.	3,819-3,824	Nov.	108
Taylorville NE NE 29-25-12W	The El Dorado Refg. Co. No. 1 Wendelburg	Viola	4,006-4,021	Aug.	186
Wood SE SW 33-22-14W	Petroleum, Inc. No. 1 Wood	Arbuckle	3,965-4,015	July	26
Sumner County					
Bitter Creek SW SW 1-35-1E	Alpine Oil & Royalty Co., Inc., No. 1 Ramp	Mississippian	3,500-3,515	Dec.	334
Dyal NE NW 4-35-2E	P. A. Eckland, et al. No. 1 Dyal	"Bartlesville"	3,424-3,430	Apr.	50
Hilltop SE SE 26-34-2E	Orville H. Parker No. 1 Hansen	"Bartlesville"	3,472-3,502	Sept.	10
State Line SW SE 14-35-2E	L. C. Smitherman No. 1 McCorgary	"Cleveland"	3,158 (top)	Oct.	200
Trego County					
Adair SW SE 21-12-21W	Lafayette Oil Co. No. 1 Baugher	Marmaton	3,879-3,884	July	120
Hixson NW NE 19-11-22W	Brunson Drlg. Co., Inc. No. 1 Hixson	Marmaton	3,818-3,826	Sept.	15
Kutina NW NE 29-15-21W	W. E. Wickizer No. 1 Kutina	Mississippian?	4,151 (top)	Sept.	D & A
Locker NE NW 5-14-21W	Carl Todd Drlg. Co. No. 1 Locker	Penn. basal congl.	4,029-4,040	Oct.	110
Spaulding NW NE 1-11-21W	Imperial Petro. Co., Inc. No. 1 Spaulding "B"	Lans.-K.C.	3,573-3,580	Mar.	17
Wakeeney Northwest SE SW 4-11-23W	Imperial Petro. Co., Inc. No. 1 Walker	Lans.-K.C.	3,561-3,568	May	2,192

'Location of original discovery well.

TABLE 6.—*New oil and gas fields discovered in Kansas during 1953, concluded*

County, pool, and location of discovery well	Discovery well	Producing zone	Production depth, feet	Month of discovery	Initial production per day, bbls.
Rooks County					
Allphin SW NW 33-10-20W	Continental Oil Co. No. 1 Allphin	Arbuckle	3,729-3,736	Apr.	497
Berland East NE SW 20-10-19W	The Derby Oil Co. No. 1 Berland	Arbuckle	3,778-3,782	Dec.	27
Berland Southeast SE NW 29-10-19W	Petroleum, Inc. No. 1 Dick	Arbuckle	3,755-3,760	Nov.	240
Brungardt Northwest SW NE 34-10-17W	J. F. Darby Oil Co. No. 1 Brumitt	Arbuckle	3,477-3,484	Dec.	123
Colby NE SW 27-10-17W	Trans-Era Petroleum, Inc. No. 1 Colby	Lans.-K.C.	3,384-3,386	Mar.	85
Dorr South SE SE 20-9-16W	Harold Kreuger Co. & Transit Corp. No. 1 Overholser	Toronto	3,178-3,188	Dec.	54
Ganoung NE SE 31-9-17W	Heathman & Co., Inc. No. 1 Ganoung	Penn. basal congl.	3,524-3,531	Mar.	97
Kruse Northwest SW SW 34-9-16W	Transit Corp. No. 1 Becker (Old well worked over)	Lans.-K.C.	3,200-3,206	July	22
Lynd Southeast NE SW 4-10-19W	L. B. Stableford No. 1 Ondrasek (Now part of the Lynd field)	Arbuckle	3,690-3,694	Dec.	108
Northampton Southeast NE SE 35-9-20W	Francis Oil & Gas, Inc. No. 2 Wilson "C"	Arbuckle	3,775-3,787	Nov.	3,000
Paradise Creek West NE NE 20-9-18W	Heathman & Co., Inc. No. 1 Baumgartner "B"	Arbuckle	3,594-3,607	Nov.	2,779
Williams SW NW 9-10-18W	Midstates Oil Corp No. 1 Roll Williams	Arbuckle	3,733-3,739	Feb.	487
Williams Northwest NE NW 6-10-18W	Graham-Messman-Rinehart Oil Co. No. 1 Williams	Lans.-K.C.	3,409-3,455	July	280
Williams Southeast NW NE 16-10-18W	C-G Drilling Co. No. 1 Ordway "A"	Lans.-K.C.	3,444-3,447	Aug.	22
Rush County					
Chilly Knob SW SW 18-19-17W	Barbara Oil Co. No. 1 Schraeder	Arbuckle	3,928-3,951	Dec.	D & A
Reichel NW NE 23-17-17W	Morrison Drlg. Co., Inc. No. 1 Reichel	Lans.-K.C.	3,393-3,429	Mar.	29,000,000 cu. ft. gas
Russell County					
Fossil Creek NE NE 11-14-14W	Murfin Drlg. Co. No. 1 Boxberger	"Langdon sand" (Wabaunsee)	2,341-2,347	Mar.	30
Heim NE SE 21-14-12W	Shelley-Miller Drlg., Inc. No. 1 Heim	Penn. basal congl.	3,189-3,200	Aug.	25
Saline County					
Salemsborg North SE SW 32-15-3W	J. A. Davis & J. H. Child, No. 1 Townsdin-Robinson	Maquoketa (Viola)? (Now part of the Salemsborg field)	3,392-3,396	Feb.	124
Salemsborg Northeast SW NE 5-16-3W	Phillips & Sanderson No. 1 Johnson "A"	Maquoketa (Viola) (Now part of the Salemsborg field)	3,364-3,371	Feb.	120
Salemsborg South NW SW 8-16-3W	National Assoc. Petro. Co. No. 1 Oleen (Now part of the Salemsborg field)	Viola	3,440-3,444	Apr.	199
Sedgwick County					
Cottage SW SE 19-25-2E	Carlock Oil Co. No. 1 Nickles	"Burgess"	3,004-3,010	Sept.	20
Seward County					
Blue Bell NW NW 33-34-31W	Jomilson Producers No. 1 Long	Mississippian (Chesteran)	5,959-5,965	Apr.	483,000 cu. ft. gas
Kismet Northwest NE SE 10-33-31W	Columbian Fuel Corp. No. 1 Rinehart	Morrowan	5,584-5,588	Dec.	2,300,000 cu. ft. gas
Thirty-one NE SW 18-31-31W	Helmerich & Payne, Inc. No. 1 Ellis	Morrowan	5,448-5,460	Nov.	4,925,000 cu. ft. gas
Sheridan County					
Hortonville SE NW 20-6-26W	Natl. Coop. Ref. Assn. No. 1 Hardesty	Lans.-K.C.	3,789-3,812	Feb.	64

Wessel NW NW 27-6-29W	Westpan Hydro-Carbon Co., No. 1 Wessel	Lans.-K.C.	4,092-4,096	Mar.	216
Wessel North SE SE 16-6-29W	Sauvage & Dunn Drlg. Co., Inc., No. 1 Brantley	Lans.-K.C.	4,081-4,085	Dec.	80
Stafford County					
Cephas NE NE 10-25-14W	Helmerich & Payne, Inc. No. 1 Toland	Viola	4,114-4,122	Apr.	131
Cleveland NE SE 21-23-14W	Greenland Drlg. Co. No. 1 Birdsall	Lans.-K.C.	3,690-3,697	Oct.	168
Cleveland South SE NE 28-23-14W	Greenland Drlg. Co. No. 1 Cadman	Lans.-K.C.	3,703-3,710	Nov.	7
Diamond NW NW 8-22-13W	Petroleum, Inc. No. 1 Stewart	Lans.-K.C.	3,426-3,453	Feb.	100
Green Ridge NW NE 30-23-14W	Greenland Drlg. Co. No. 1 Cadman	Lans.-K.C.	3,788-3,810	Oct.	162
Green Valley SW SW 2-23-14W	Westgate-Greenland Oil Co., No. 1 Copeland	Lans.-K.C.	3,640-3,650	Feb.	140
Hahn SW NE 21-22-13W	Sunray Oil Corp. No. 1 Hahn	Lans.-K.C.	3,610-3,615	Jan.	16
Newell SW NW 7-25-11W	Natl. Coop. Ref. Assn. No. 1 Newell	Viola	3,913-3,916	Nov.	3,000
North Star North SE NW 21-24-12W	C. H. Newell et al. No. 1 Piepmeier	Arbuckle	4,101 (top)	Dec.	D & A
Oscar South NE SE 26-22-14W	Petroleum, Inc. No. 1 Smith "J"	Arbuckle	3,817-3,819	Dec.	301
Prairie Home South SW NE 11-21-13W	Lee Phillips Oil Co. No. 1 Nixon	Lans.-K.C.	3,395-3,398	June	376
Pritchard Southeast NW NE 2-21-14W	Lee Phillips Oil Co. No. 1 Schumacher	Arbuckle	3,472-3,490	Aug.	386
Radium NE SW 7-22-14W	Birmingham-Bartlett Drlg. Co., No. 1 Smith "A"	Viola	3,775 (top)	May	D & A
Radium Townsite SE NW 5-22-14W	Westgate-Greenland Oil Co. & Sinclair Oil & Gas Co., No. 1 Estes	Arbuckle	3,852-3,872	June	1,921
Radke NW NW 25-23-14W	Westgate-Greenland Oil Co., No. 1 Radke	Lans.-K.C.	3,688-3,700	Apr.	110
Shepherd South SE NW 21-22-11W	E. H. Adair Oil Co. No. 2 Sleeper	Arbuckle	3,602-3,613	Apr.	198
Slade SE SW 23-25-12W	Natl. Coop. Ref. Assn. No. 1 Slade	Lans.-K.C.	3,819-3,824	Nov.	108
Taylorville NE NE 29-25-12W	The El Dorado Refg. Co. No. 1 Wendelburg	Viola	4,006-4,021	Aug.	186
Wood SE SW 33-22-14W	Petroleum, Inc. No. 1 Wood	Arbuckle	3,965-4,015	July	26
Sumner County					
Bitter Creek SW SW 1-35-1E	Alpine Oil & Royalty Co., Inc., No. 1 Ramp	Mississippian	3,500-3,515	Dec.	334
Dyal NE NW 4-35-2E	P. A. Eckland, et al. No. 1 Dyal	"Bartlesville"	3,424-3,430	Apr.	50
Hilltop SE SE 26-34-2E	Orville H. Parker No. 1 Hansen	"Bartlesville"	3,472-3,502	Sept.	10
State Line SW SE 14-35-2E	L. C. Smitherman No. 1 McCorgary	"Cleveland"	3,158 (top)	Oct.	200
Trego County					
Adair SW SE 21-12-21W	Lafayette Oil Co. No. 1 Baugher	Marmaton	3,879-3,884	July	120
Hixson NW NE 19-11-22W	Brunson Drlg. Co., Inc. No. 1 Hixson	Marmaton	3,818-3,826	Sept.	15
Kutina NW NE 29-15-21W	W. E. Wickizer No. 1 Kutina	Mississippian?	4,151 (top)	Sept.	D & A
Locker NE NW 5-14-21W	Carl Todd Drlg. Co. No. 1 Locker	Penn. basal congl.	4,029-4,040	Oct.	110
Spaulding NW NE 1-11-21W	Imperial Petro. Co., Inc. No. 1 Spaulding "B"	Lans.-K.C.	3,573-3,580	Mar.	17
Wakeeney Northwest NE SW 4-11-23W	Imperial Petro. Co., Inc. No. 1 Walker	Lans.-K.C.	3,561-3,568	May	2,192

*Location of original discovery well.

added as new oil-producing counties. The total of Kansas counties which have in the past or are at present producing commercial quantities of oil or gas or both is 80.

Table 7 summarizes new oil and/or gas zones discovered in old producing fields during 1953. Data similar to those presented for new pool discoveries are given.

Abandoned pools.—Eleven oil or gas pools were officially abandoned during 1953 by the Kansas Nomenclature Committee. These abandonments are discussed under the individual counties where they occurred. Sixty oil or gas pools were combined with other pools after it was determined that the pools had common reservoirs. As has been the custom of the Survey, the outlines of the abandoned pools are omitted from the maps in this bulletin. Total production from abandoned areas is listed at the botton of each county summary (Tables 56 and 57).

Wells drilled during 1953.—There were 5,147 wells recorded as being drilled in the State during 1953. It is certain that numerous shallow wells in several eastern Kansas counties were not recorded and thus are not included in this tabulation. It is estimated from reliable sources other than scout reports that at least 667 such unreported shallow wells were drilled in 1953. Of the tests reported 2,273 were oil wells, 380 were gas wells, 2,151 were dry and abandoned holes, and 343 were salt-water disposal or input

TABLE 7.—*New oil or gas zones in old producing fields*

County, pool, and location of discovery well	Discovery well	Producing zone	Production depth, feet	Month of discovery	Initial production per day, bbls.
Barber County					
DeGeer NW NW 1-33-15W	Lion Oil Co. No. 1 Liles	Mississippian	4,902-4,915	Feb. (1952)	11,000,000 cu. ft. gas
Whelan SW SW 20-31-11W	Graham-Messman-Rinehart Oil Co., No. 1 Dryden	Douglas	3,598-3,606	May	2,500,000 cu. ft. gas
Barton County					
Bieberle North SE NE 32-18-11W	The Texas Co. No. 2 Schlochtermeier	Arbuckle (Now part of the Bieberle field)	3,422-3,430	May	283
Ellinwood North NW NW 33-19-11W	Stanolind Oil & Gas Co. No. 1 N. J. Schartz	Lans.-K.C.	3,090-3,095	Sept.	50
Heizer Southwest NW NW 28-19-14W	Honaker Drilling Co. No. 1 Hall	Lans.-K.C.	3,379-3,384	Oct.	294
Heizer Southwest NW SE 21-19-14W	Honaker Drilling Co. No. 2 Miller	Arbuckle	3,552-3,555	Aug.	5
Hiss East SW NW 33-20-13W	Phillips Petroleum Co. No. 1 Hiss	Lans.-K.C.	3,383-3,392	Feb.	723
Kramp SE SE 6-19-11W	J. A. Terteling & Sons No. 1 Birzer	Lans.-K.C.	3,243-3,254	Jan.	115
Pendergast SE NW 27-19-15W	Schermerhorn Oil Corp. No. 1 Jurgenson	Arbuckle	3,596-3,611	Oct.	D & A

Thill SE NW 28-19-11W	Pabco Drilling, Inc. No. 4 Thill (Now part of the Anton field)	Arbuckle	3,328-3,347	May	83
Cowley County					
Canfield NE NW 13-34-3E	Aylward Drilling Co. No. 1 Canfield	"Layton"	2,651 (top)	Oct. (1952)	40
Fussell NW SE 14-34-3E	Crest Drilling Co. No. 1 Fussell	K.C. (Now part of the Canfield field)	2,839-2,845	Jan.	30
Harvey NW NW 15-34-3E	Aladdin Petro. Corp. No. 6 Snyder	K.C. ("Layton")	2,574-2,577	July	32
Ellis County					
Antonino Townsite East. NW NW 6-15-18W	Petroleum, Inc. No. 2 Ryan	Arbuckle	3,634-3,638	Apr.	50
Dreiling Southeast NW NW 35-14-16W	Transit Corp. No. 1 Robben	Arbuckle	3,327-3,339	June	225
Erbert NW NW 20-12-20W	Natl. Coop. Ref. Assoc. No. 1 Erbert	Lans.-K.C.	3,527-3,534	June	146
Irvin SE SE 6-14-19W	Stanolind Oil & Gas Co. No. 1 Irvin Unit	Lans.-K.C.	3,553-3,561	Feb.	132
Leiker SW SE 10-15-18W	Francis Oil & Gas, Inc. No. 6 Wassinger	Penn. basal congl.	3,582-3,590	Dec.	44
Leiker East SW SW 12-15-18W	Don E. Pratt No. 2 Brock				
Pleasant NE SW 2-14-20W	Sunray Oil Corp. No. 5 Orth	Marmaton	3,805-3,811	Oct.	27
Raynesford SW NW 17-13-20W	Imperial Petroleum Co., Inc., No. 1 Raynesford "A"	Lans.-K.C.	3,535-3,540	Mar.	25
Reed NE NW 5-13-17W	Sunray Oil Corp. No. 1 Schmeidler	Arbuckle	3,596-3,601	Oct.	178
Schmeidler Northwest SE NW 21-12-17W	Carl Lebsack Oil Production Co., No. 1 Dreiling	Lans.-K.C.	3,540-3,546	Sept.	215
Turkville SW SE 11-11-17W	Derby Oil Co. No. 1 Slimmer	Lans.-K.C.	3,165-3,195	Aug.	48
Wheatland NW NW 20-15-17W	Jones, Shelburne, & Farmer, Inc., No. 1 Stecklein	Lans.-K.C.	3,307-3,330	Mar. (1952)	10
Wheatland Southwest SE NW 30-15-17W	Natl. Coop. Ref. Assoc. No. 3 Leiker	Lans.-K.C.	3,252-3,480	Dec.	321
Ellsworth County					
Heiken NW NE 36-17-10W	Wentworth & Sons No. 2 Sturn	Penn. basal congl.	3,226-3,231	Jan.	373
Graham County					
Mickleson SW NE 27-8-22W	Jones, Shelburne, & Farmer, Inc. No. 3 Mickleson	Lans.-K.C.	3,502-3,511	Mar.	234
Kingman County					
Basil SE NE 16-29-7W	Cities Service Oil Co. No. 1 Brand	Lans.-K.C.	3,727-3,737	July	294
Dresden SW SE 13-27-10W	Anderson-Prichard Oil Corp. No. 1 Freeland	Lans.-K.C.	3,806-3,812	Nov.	16
Orsemus NW SE 30-29-5W	The Texas Co. No. 1 Tanner	Viola	4,455-4,467	Dec.	182
Lane County					
North Fork NW SW 19-17-29W	Hugoton Production Co. No. 2 Floyd	Marmaton	4,400-4,424	Feb.	75
Meade County					
Adams Ranch SE NE 4-35-30W	Columbian Fuel Corp. No. 1 Adams	Morrowan	5,708-5,782	July	2,200,000 cu. ft. gas
Morton County					
Greenwood NE NW 11-33-42W	Cities Service Oil Co. No. 1 Boehm	Wabaunsee Shawnee	2,988-3,018 3,105-3,110	Dec. (1952)	15,800,000 cu. ft. gas
Richfield SW NE 18-32-40W	J. M. Huber Corp. No. 1 Church	Morrowan	5,397-5,462	July	12,458,000 cu. ft. gas
Pawnee County					
Evers SW SE 35-21-16W	Iron Drilling Co. No. 4 Prosser "B"	Penn. basal congl.	3,814-3,819	Sept.	318

TABLE 7.—*New oil or gas zones in old producing fields, concluded*

County, pool, and location of discovery well	Discovery well	Producing zone	Production depth, feet	Month of discovery	Initial production per day, bbls.
Pratt County					
Iuka-Carmi Northwest NW NE 26-26-13W	Amerada Petroleum Corp. No. 1 Bruns "A"	Viola	4,217-4,258	Oct.	14
Iuka-Carmi South NW NE 19-27-12W	W. G. Schafer Drlg. Co. No. 1 Bergner (Now part of the Iuka-Carmi field)	Lans.-K.C.	3,755-3,764	Feb.	227
Moore SE NE 2-26-14W	Bishop Oil Co. No. 1 Henderson	Viola	4,234-4,244	July	1,596
Moore Southwest NW SE 11-26-14W	Champlin Refg. Co. No. 1 Bobby Moore "A"	Lans.-K.C.	3,846-3,851	June	15
Moore Southwest SE SE 10-26-14W	Champlin Refg. Co. No. 1 C. Henderson "B"	Kinderhookian	4,246-4,252	May	237
Rooks County					
Bassett Southwest SE NE 30-10-20W	Sunray Oil Corp. No. 1 Allphin (Now part of the Laura Southeast field)	Lans.-K.C.	3,572-3,576 3,543-3,549	Jan.	210
Baumgarten NW SW 30-9-18W	Grant Oil Co. No. 1 Sollenberger	Lans.-K.C.	3,401-3,474	Aug.	199
Brungardt SE SE 35-10-17W	Champlin Refg. Co. No. 4 Brungardt	Penn. basal congl.	3,449-3,470	Mar.	114
Brungardt SW SE 35-10-17W	Champlin Refg. Co. No. 7 Brungardt	Arbuckle	3,644-3,650	Apr.	32
Dopita East SW SW 28-8-17W	Jones, Shelburne & Farmer, Inc. No. 1 Stamper "C"	Arbuckle	3,421-3,427	June	248
Ganoung NE NW 31-9-17W	W. L. Hartman No: 1 Adams "A"	Lans.-K.C.	3,281-3,291	June	214
Mt. Ayr SW SW 18-10-17W	Champlin Refining Co. No. 1 Garvert	Penn. basal congl.	3,648-3,658	Apr.	53
Vohs Northwest SW NE 9-10-19W	Walters Drlg. Co. No. 1 Henderson	Arbuckle	3,738-3,745	Mar.	297
Williams SE NE 8-10-18W	Midstates Oil Corp. No. 1 Wise "A"	Lans.-K.C.	3,459-3,469	Apr.	132
Williams NE SE 8-10-18W	The Atlantic Refg. Co. No. 1 Ordway	Simpson	3,717-3,723	Sept.	319
Seward County					
Liberal-Light NE SW 36-34-32W	Lansekan Co., Inc. No. 1 Wood	Lans.-K.C.	5,103-5,115	Sept.	1,082
Stafford County					
Bunselmeyer NE NW 1-22-13W	Anschutz Drlg. Co. No. 1 Weiszbrod (Now part of the Gates field)	Lans.-K.C.	3,444-3,453	Apr.	898
Dell Northeast SE NW 5-21-13W	Petroleum, Inc. No. 1 Newcombe "B"	Lans.-K.C.	3,438-3,444	May	17
Drach West SW SE 11-22-13W	Lindsley Drlg. Co. No. 1 Drach	Lans.-K.C.	3,519-3,525	July	87
Hazel SW NW 28-21-13W	Petroleum, Inc. No. 6 Hufford "A"	Lans.-K.C.	3,380-3,384	Oct.	778
Koelsch Southeast SE NW 36-24-14W	Natural Gas & Oil Co. No. 5 Kachelman	Simpson	4,181-4,191	Sept.	110
Radium NE SW 7-22-14W	Birmingham-Bartlett Drlg. Co. No. 1 Smith "A"	Lans.-K.C.	3,476 (top)	May	D & A
Rothgarn Southeast SE NE 14-21-13W	Westgate-Greenland Oil Co., No. 5 Doran	Lans.-K.C.	3,378-3,402	Feb.	466
Wood SE SW 33-32-14W	Petroleum, Inc. No. 1 Wood	Simpson	3,932-3,936	Sept.	188
Sumner County					
Hilltop NE SE 35-34-2E	Martin & Cash Drlg. Co. No. 1 Buffington "B"	"Layton"	2,808-2,814	Dec.	20
Portland NW NW 16-34-1E	Herndon Drlg. Co. No. 6 Hunt	"Layton"	3,030-3,068	June	141

wells drilled in connection with secondary recovery operations. New pool discoveries and pool revivals accounted for 187 of the oil and gas wells; 501 of the dry holes were dry wildcat tests.

Seven Kansas counties had more than 200 wells recorded drilled in 1953. As in previous years, Barton County led all others with 432. Following in order were Stafford (400), Ellis (390), Cowley (381), Butler (318), Russell (308), and Rooks (265). These seven counties accounted for 46.5 percent of the total number of wells drilled in the State during 1953.

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 1953 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 1953 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 1953 completions. The 1953 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.

Well elevations.—Elevations of many wildcat tests in the State are given in tables or in the text. Publication of elevations of many

wildcat wells was made possible through the cooperation of Laughlin-Simmons and Company, Tulsa, Oklahoma.

Eastern Kansas Counties.—Counties lying wholly east of the sixth principal meridian are regarded as being in eastern Kansas, an area that has been treated separately in some reports (Jewett, 1954), and is treated somewhat differently in this report. Plate 1 is a map of eastern Kansas showing locations of oil-producing areas as of 1953 rather than recognized oil fields. Locations of secondary recovery projects are shown on the same map.

Developments in eastern Kansas in 1953 were intensified by the searching for shallow reservoir rocks in which commercial wells can be completed by hydraulic fracturing methods. New fields opened (especially in Cowley County), joining of fields, and field extensions are particularly significant.

A very significant amount of oil is produced in eastern Kansas by secondary recovery methods, especially water flooding. In 1953 the total oil production by secondary recovery methods, including an estimate of those projects not specifically reporting, was more than 10.9 million barrels. Data on secondary recovery operations are listed in Table 1.

Acknowledgments.—T. A. Morgan, J. P. Roberts, D. C. Lilley, and H. A. Beverlin of the Conservation Division of the State Corporation Commission have for a long time cooperated to the fullest extent with the Geological Survey. Without their cooperation this report would not be possible.

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 Company; Cooperative Refinery Association; The El Dorado Refining Company; Virgil Gamble; Joplin Refining Company; Anderson-Prichard Oil Corporation; 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 No-

menclature 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 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 B. F. Brundred, Virgil Cole, Mack C. Colt, John A. Edwards, Lee Garrett, Thomas W. Lee, William McHugh, J. H. Page, Carl L. Pate, Harold O. Smedley, W. L. Stryker, Charles W. Studt, Joe Svoboda, Albert Sweeney of the Interstate Oil Compact Commision, Harvel White, and Earl A. Whitworth.

Special thanks are due to Laughlin-Simmons and Company of Tulsa, Oklahoma, for permission to publish certain well elevations and to J. D. Davies of the Kansas Sample Log Service for permission to use data on some rank wildcat tests drilled during the year. Thanks are also extended to the Independent Oil and Gas Service for their scouting service, which has been most helpful.

The Survey is pleased to acknowledge assistance from Vance E. Rowe and his Petroleum Statistical Guide, Inc., in connection with his supplying a large part of the crude oil production figures, and to D. R. Dwight in making available production figures for the Hugoton Gas Area.

SECONDARY RECOVERY

Repressuring of oil-bearing rocks by injection of water, air, or gas or a combination of these agents, has become a principal method of oil productin in Kansas, since official sanction and status were given the practice through the passage of a law in Kansas in 1935. Grandone (1944) reported that after passage of the law, the first legal project was organized by the York State Oil Company in the Seeley pool of northern Greenwood County in May of 1935. Pointing up the significance of the secondary recovery activities in the State, especially in the Cherokee basin and

TABLE 8.—*Data on seven counties producing oil by secondary recovery in 1953*

County	Number of projects, 1953	Total oil, production, 1953, bbls.	Secondary recovery oil production, 1953, bbls.	Percent of total production
Allen	14	613,418	401,960	65.5
Anderson	9	653,126	587,881	90.0
Butler	16	8,615,810	2,307,709	26.8
Franklin-Miami	18	1,067,857	831,020	77.8
Greenwood	50	5,638,310	4,423,653	78.5
Neosho	9	612,451	346,763	56.6

the southern part of the Forest City basin, is the fact that production has risen from an estimated 5 million barrels in 1942 to more than 10.9 million barrels this year, accounting for more than 9 percent of the state's total production this year. The reported production for 1953 totaled 10,655,125 barrels, and the 10.9 million barrel figure is reached by adding an estimate of those operations not reporting specifically.

Table 1 lists all the secondary recovery operations in the State for which permits to flood have been issued by the Conservation Division of the Kansas Corporation Commission. Of the 182 projects listed, 162 reported a total of 6,444 wells producing oil by secondary recovery methods and 5,067 wells which were utilized as input wells for injection of a repressuring medium. Of the total operating projects, 174 are located east of the sixth principal meridian, which runs north and south through Wichita.

Greenwood County as in past years led all other counties in the number of projects operating as well as in production attributable to secondary recovery (Table 8). During 1953, 50 projects in Greenwood County accounted for almost 4.5 million barrels of oil, while 16 projects in Butler county, the second largest producer of oil by secondary recovery methods, accounted for more than 2.3 million barrels. These two counties accounted for more than half the oil produced through repressuring projects in Kansas.

The following zones listed in order of their importance provided the bulk of the oil produced by secondary recovery methods: "Bartlesville sand," "Peru sand," and "Wayside sand." Salt water was used for repressuring in most of the Kansas projects. Of the many subsurface zones from which salt water is obtained for repressuring, the three main ones are sandstones 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. 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, because 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 periods; therefore any treatment required before injection need not be changed.

NATURAL GAS

General.—Many Kansas consumers of natural gas feel that too much of their State's natural resource is being shipped from the State to outside markets. The shipping of natural gas through extensive pipe-line systems across state lines and the approval of new cross-country lines comes under the jurisdiction of the Interstate Commerce Commission and the Federal Power Commission, respectively. The apportionment of new lines and approval of transmission of gas is based on the considerations of the greatest good to the greatest mass of people and on economic investment values. Considering these bases, Kansas, ranking fifth among the gas-producing states, fourth in reserves, and with a relatively small population has only a minor voice in the eventual use of the gas. Among Kansans, the producers, of course, want to export excess gas for income which returns to the State. On the other side of the question is the Kansas consumer, both domestic and industrial, who desires retention of the State's natural resource within the State's borders, arguing that exportation of our natural gas is depleting our reserves. As indicated in Figure 3, a significant portion of our annual gas production is being exported; however, it is to be noted that for the last 4 years, the State's consumption as a percentage of the total product, which

TABLE 9.—*Statistical summary of Kansas natural gas production and use, 1950-1953**

	Millions of M cu. ft. at 14.65 psia				Percentage change
	1950	1951	1952	1953	1952-1953
Natural gas produced in Kansas	361.9	407.1	408.7	420.6	+ 2.9
Imported from outside the State	59.5	47.8	67.2	48.2	—28.3
Total to account for	421.4	454.9	475.9	468.8	— 1.5
Gas consumer in Kansas during year					
Domestic	84.2	95.2	101.9	102.0	+ 0.1
Industrial, misc., and losses	126.2	131.0	138.9	141.0	+ 1.5
Carbon black	15.7	17.4	15.6	10.9	—30.1
Total Kansas consumption	226.1	243.4	256.4	253.9	— 0.9
(Consumption as pct. of prod.)	(62.7)	(59.8)	(62.7)	(60.4)	— 3.6
Exported from State	196.4	211.5	219.5	214.9	— 2.1
Total	422.5	454.9	475.9	468.8	— 1.5

* Figures provided by Conservation Division, Kansas Corporation Commission.

includes domestic production and imports (Table 9), has remained very close to 60 percent. Both domestic and industrial use of Kansas natural gas within the State has risen over the past 4 years.

Production and use.—The amounts of natural gas produced from the principal Kansas fields during 1953 are shown by county in Table 57. 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 more than 92 percent of the State's total for 1953.

Table 9 and Figure 3, showing some statistics on Kansas natural gas from 1950 through 1953, reveal some important trends. The production of natural gas from 1950 through 1953 showed annual increases. During 1953, importation from outside the State decreased about 28 percent; however, exportation of natural gas decreased only a little more than 2 percent. Total Kansas domestic and industrial consumption, omitting carbon black, is at an all-time high. The use of natural gas in the carbon black industry in Kansas is supplemented by the use of natural gas liquids. Production of carbon black dropped 30 percent during 1953. About 40 percent of our total gas production (produced and imported) was exported during 1953. This percentage of exportation of natural gas is believed to be a smaller proportion than most Kansans realize.

New Developments.—Twenty-four new gas pools (22 gas, 2 oil and gas) were discovered in Kansas during 1953. The most important development in the State during the year was the successful development of the Greenwood gas pool in Morton County.

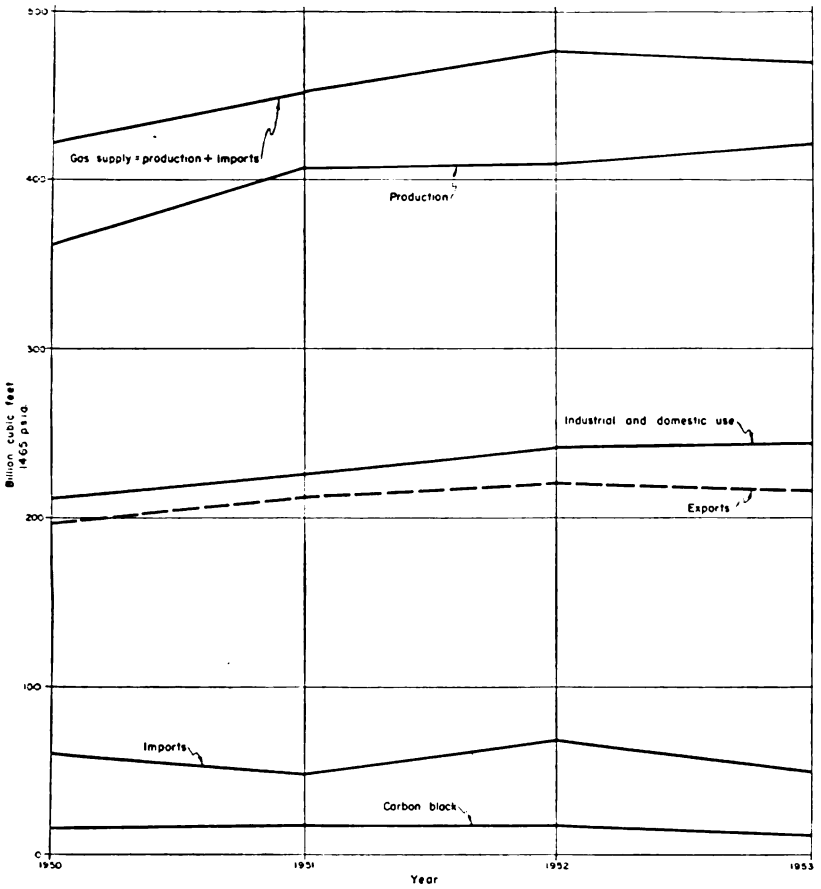


FIG. 3.—Use and disposition of Kansas natural gas.

During 1953, 39 new gas wells, extending over most of three townships, were added to the pool. The pool now produces from three zones, the Wabaunsee, Shawnee, and Morrowan. The producing capacity of the new wells ranged from about 0.5 million cubic feet per day to more than 35 million cubic feet per day. The average capacity of the new wells is about 23 million cubic feet per day. Most of the new wells reported a rock pressure of about 434 pounds. The State Corporation Commission took jurisdiction and wrote an interim order of proration on the new important gas reserve, very similar to the basic order for the adjacent Hugoton Gas Area. The order was invoked and made effective December 28, 1953.

The redefinition of the cubic foot of gas to the new base of 14.65 pounds per square inch absolute, revoking the old base of 16.4 pounds per square inch absolute is a significant development for the State during the year. The adoption of this base is in line with the usage of the cubic foot of gas by the American Gas Association and the U. S. Bureau of Mines, thereby facilitating statistical comparison. The ordering of a new minimum base price of 11 cents per thousand cubic feet at 14.65 psia for Kansas natural gas from the Hugoton Gas Area effective January 1, 1954, is an important boost to the State's income from this natural resource.

The Hugoton Gas Area.—The Hugoton Gas Area, with its extension across the Oklahoma "strip" and well into the Texas panhandle, is regarded as containing one of the world's largest known gas reserves. Production from the Kansas portion of the field, more than 50 percent of the total, is shown by years in Table 10. It is significant to the State's economy that production from the Kansas portion of the field has increased from about 30 million cubic feet annually in 1938 to more than 387 million cubic feet in 1953.

The Defenders and Traders Gas Company's successful gas well in 1922, in sec. 3, T. 35 S., R. 34 W., Seward County, has been accredited as the discovery well of the Hugoton Gas Area proper. The well opened the Liberal gas field, which has since been joined to the Hugoton Gas Area. Rapid development of the huge gas reservoir in southwestern Kansas came in the early 1940's. 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. At the close of 1953, there were 3,101 producing gas wells and the area of the Kansas part of the Hugoton Gas Area was about 2,430,000

TABLE 10.—*Production from the Kansas part of Hugoton Gas Area*

Year	M cu. ft. gas (14.65 psia.)	Year	M cu. ft. gas (14.65 psia.)
1938	29,843,417	1946	119,637,983
1939	32,424,301	1947	157,663,036
1940	37,083,797	1948	185,872,594
1941	40,759,482	1949	247,868,876
1942	46,365,484	1950	320,545,480
1943	70,921,532	1951	371,002,475
1944	92,922,821	1952	375,081,748
1945	90,345,203	1953	387,635,243

TABLE 11.—*Gas wells drilled in Hugoton Gas Area by counties since 1947*

	1947		1948	1949	1950	1951	1952	1953	
	Drilled	Cumulative	Drilled	Drilled	Drilled	Drilled	Drilled	Drilled	Cumulative
Finney	36	66	20	76	47	19	49	73	350
Grant	59	269	65	89	36	68	29	6	562
Hamilton	1	2	2	2	1	8	8	10	33
Haskell	21	127	44	42	39	33	30	27	342
Kearny	88	155	49	71	51	56	75	72	529
Morton	14	61	25	6	52	62	27	31	264
Seward	19	26	22	41	91	51	10	19	260
Stanton	53	94	31	9	17	25	7	27	210
Stevens	95	470	75	77	63	16	17	4	722
	+386	=1,270	+333	+413	+397	+338	+252	+269	=3,272

acres. It includes two entire counties (Stevens and Grant) and parts of seven others (Finney, Hamilton, Haskell, Kearny, Morton, Seward, and Stanton). Revised figures on the number of wells drilled each year since 1947, and the cumulatives are given in Table 11.

Through the assistance of the Conservation Division of the Kansas Corporation Commission and Mr. O. R. Dwight of Dwight's Oil and Gas reports, county production figures and total county cumulatives have been prepared for the first time in this bulletin. These data are given in Table 12.

The producing area of the Hugoton Gas Area has been limited by the Kansas Nomenclature Committee to gas produced from formations in the Chase group of the Permian System. The lateral

TABLE 12.—*County production and cumulatives, Hugoton Gas Area**

	Cumulative production to end of 1952, million cu. ft.	1953 production, M cu ft.	Cumulative production to end of 1953, M cu ft.
Finney	120,964	30,784,079	151,748,079
Grant	452,599	84,403,364	537,002,364
Hamilton	2,982	5,367,827	8,349,827
Haskell	161,535	31,315,837	192,850,837
Kearny	274,608	71,955,888	346,563,888
Morton	135,518	24,230,135	159,748,135
Seward	86,707	22,320,095	109,027,095
Stanton	45,072	16,018,254	61,090,254
Stevens	1,073,080	101,239,764	1,174,319,764
Total	2,353,065	387,635,243	2,740,700,243

* Base 14.65 psia.

stratigraphic or structural features of the gas-producing area are not clearly marked, so that the outline of the producing area changes with each new well drilled on the borders. Plate 2 shows the approximate boundaries of the Hugoton Gas Area as outlined at the end of 1953 by wells having been reported with initial daily capacities of 1 million cubic feet or more. The one exception to the outline as drawn is the Chase group gas production in the Sonderegger pool located approximately 9 miles east of the arbitrary boundary. The porosity of the rocks of the Chase group in the Hugoton Gas Area seems to control productivity.

Wells with initial capacities of less than 1 million cubic feet per day after acidization may not be saved by the larger companies, those producing 5 to 15 million cubic feet per day are usual, and big wells produce more than 30 million cubic feet of gas per day. The average depth to the producing zone is about 2,500 feet.

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. The spacing accounts for the fact that the surface evidences of a huge gas reservoir are few.

Gas from the Hugoton Gas Area is of rather high quality as indicated by Table 13. It yields about 0.5 gallons of natural gasoline condensate per thousand cubic feet, and has a heating value of roughly 1,000 B.t.u. per cubic foot. The majority of the State's natural gasoline plants are within the borders of the Hugoton Gas Area. The State's three carbon black plants are also located within the geographical limits of the Hugoton Gas Area.

Reserves of the Kansas part of the Hugoton Gas Area are discussed under reserves of natural gas and natural gas liquids.

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

Natural gasoline and liquefied petroleum gas production.—There were 17 natural gasoline plants reported operating in Kansas at the close of 1953, one less than the previous year. The Sunray Oil Corporation plant at Rainbow Bend in Cowley County reported no production.

The daily average production for 1953, as reported by the Conservation Division of the Kansas Corporation Commission, was 13,807 barrels. A break-down of type of production and producing plants is given in Table 14. The State's output during 1953, broken

TABLE 14.—*Natural gasoline and LPG processed in 1953** (From the Conservation Division, Kansas Corporation Commission)

	Natural gas	Butane	Propane	LPG	Total
Cities Service Oil Company					
Akansas City, Cowley Co.	23,182	.....	.....	45,941	69,123
Burrton, Reno Co.	72,982	.....	26,168	65,613	164,763
Wichita, Sedgwick Co.	528,707	.....	157,097	135,672	821,476
Colorado Interstate Gas Co.					
Lakin, Kearny Co.	134,029	.....	.....	.....	134,029
Deerfield Petroleum, Inc.					
Deerfield, Kearny Co.	123,253	.....	29,828	33,914	186,995
Drillers Gas Company					
Cheney, Sedgwick Co.	17,551	.....	.....	8,002	25,553
Flynn Oil Company					
Otis, Rush Co.	47,690	.....	.....	3,614	51,304
Hugoton Production Co.					
Ulysses, Grant Co.	191,535	127,495	155,495	.....	474,522
A. R. Jones Oil & Oper. Co.					
Pawnee Rock, Barton Co.	5,109 (Drip)	.....	.....	.....	5,109
Kansas Power & Light Co.					
Medicine Lodge, Barber Co.	33,411	.....	.....	.....	33,411
Magnolia Petroleum Co.					
Ulysses, Grant Co.	144,813	61,943	68,364	1,635	276,755
Northern Natural Gas Co.					
Holcomb, Finney Co.	97,509	.....	.....	.....	97,509
Sublette, Haskell Co.	504,811	.....	.....	.....	504,811
Panhandle East. Pipe Line Co.					
Liberal, Seward Co.	421,052	69,964	95,261	.....	586,277
Skelly Oil Company					
Cunningham, Kingman Co.	60,371	72,253	.....	.....	132,624
Stanolind Oil & Gas Co.					
Ulysses, Grant Co.	540,699	513,379	365,649	.....	1,419,727
The Texas Company					
Atlanta, Cowley Co.	31,362	.....	.....	24,094	55,456
Totals	2,978,066	845,031	897,862	318,485	5,039,444
1953 daily average in barrels					13,807
1952 daily average in barrels					12,781

* Figures in 42-gallon barrels.

TABLE 15.—*Production and estimated value of natural gas liquids in Kansas, 1953**

	Barrels	Gallons	Unit price	Value
Natural gasoline	2,978,036	.....	$2.95	$ 8,785,295
Propane	897,862	.....	.....	
Butane	845,031	73,201,506	$0.05	$ 3,660,075
LPG	318,485	13,376,370	$0.045	$ 601,937
Totals	5,039,444	211,653,648	.....	$13,047,307

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

down into four main products, together with estimated values at the plants is shown in Table 15. Production from Kansas plants for the last 12 years is shown in Table 16.

The use of LPG with natural gas in the processing of carbon black has declined steadily over the past 3 years. Less than half as much (57,723 barrels) LPG was used for this purpose during 1953 as during 1952.

Low-cost temporary storage is one of the larger problems facing the expanding LPG industry. This problem, created by the seasonal demand for the product, has been partially answered by the experiments that have been in progress over the past few years. These consist of injecting LPG into wholly or partially depleted salt-water, gas, or distillate sands. Recently, and especially in Kansas, emphasis has been placed on the creation of underground cavities by washing out salt beds.

Reserves of natural gas and natural gas liquids.—During 1953 proved reserves of natural gas in Kansas (as estimated by the Reserves Committee of Am. Petroleum Institute and Am. Gas Assn.) increased 11.2 percent, while the natural gas reserves for the nation increased only 5.9 percent. There are 15.8 trillion cubic

TABLE 16.—*Kansas production of natural gasoline and allied products, 1942-1953**

Year	Production, M gals.	Year	Production, M gals.
1942	81,828	1948	107,563
1943	85,206	1949	113,807
1944	69,834	1950	155,233
1945	72,637	1951	182,932
1946	82,591	1952	196,462
1947	99,195	1953	211,657

* Figures from 1942 through 1948 from World Oil (1951, p. 154). Figures for 1949 through 1953 supplied by Kansas Corporation Commission.

feet of natural gas estimated to be in reserve in the State as of January 1, 1954. Hydrocarbon liquids contained in the proved reserves of gas are more than 177 million barrels, an increase of 5.6 percent. Estimate figures are given in Table 17.

Keplinger, Wanenmacher, and Burns (1948) estimated that 51.7 percent of the Hugoton Gas Area, as then defined, was in Kansas. Of the total reserves they estimated that 14,051 billion cubic feet were contained in the Kansas part of the field. No later estimates have been made.

Three important features of the reserve picture in Kansas at the end of 1953 are: (1) new discoveries and extensions of proved areas are being made more rapidly than the producing areas are being depleted (11 per cent in 1953), (2) Kansas' proved reserves of natural gas liquids are more than 50 percent of the quantity of gasoline contained in the proved reserves of crude oil in the State, and (3) percentagewise Kansas showed a material increase in reserves of natural gas and natural gas liquids, while the total increase for the United States was about half as large.

The significance of Kansas reserves of natural gas liquids is commonly overshadowed by our thinking in terms only of the value of 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 industrial and domestic use.

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

TABLE 17.—*Kansas proved reserves of natural gas and natural gas liquids, December 31, 1953* (American Petroleum Institute and American Gas Association, 1953)

	Reserves* as of 12-31-52	Extensions and revisions 1953	New discoveries 1953	Production during 1953	Proved reserves 12-31-53	Nonassociated, associated, and dissolved	Changes in reserves during 1953	Percentage change 1952-1953
Natural gas liquids	168,227	6,099	8,261	4,859	177,728	.....	+9,501	+ 5.6
Natural gas	14,193,565	466,236	1,587,106	467,762	15,787,602	15,746,408	+1,594,037	+11.2

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

in Table 17 (API and AGA, 1953, p. 6) and other reserve figures used in this bulletin "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).

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 and increased 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 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 16 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 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 1953 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.

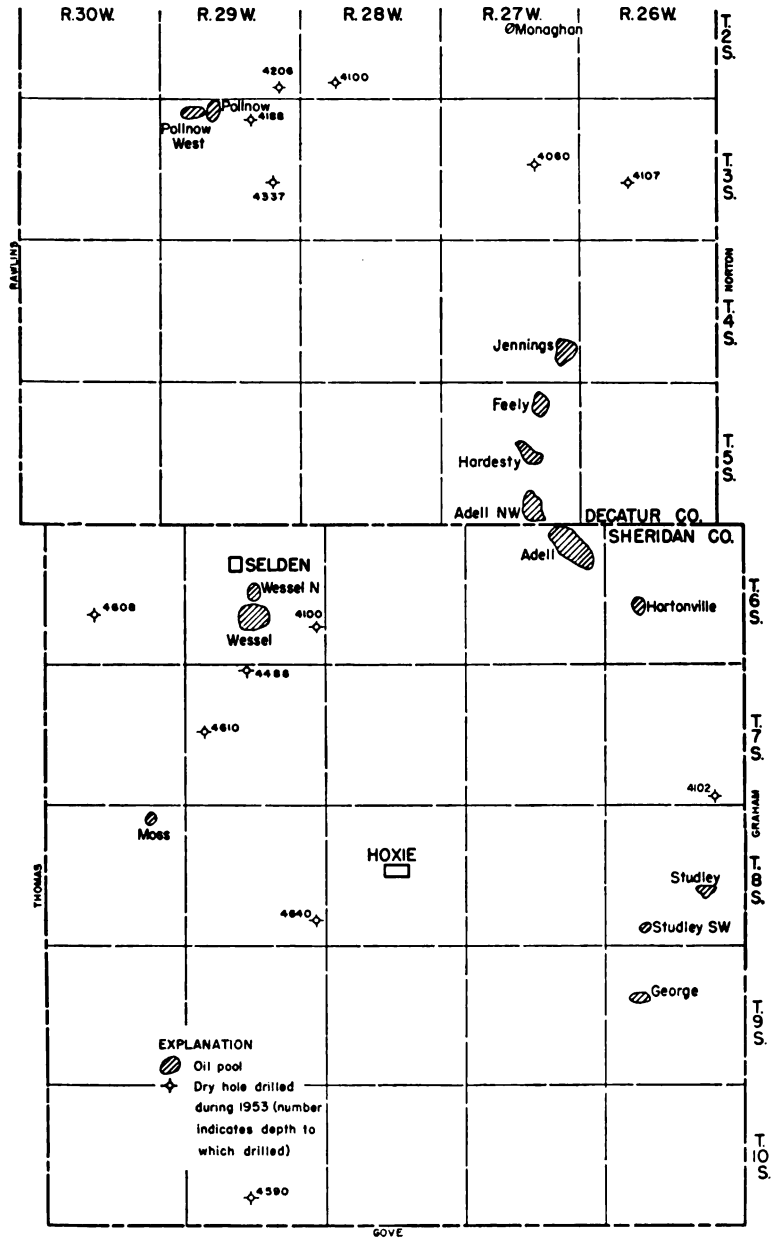


FIG. 4.—Map of Decatur and Sheridan Counties.

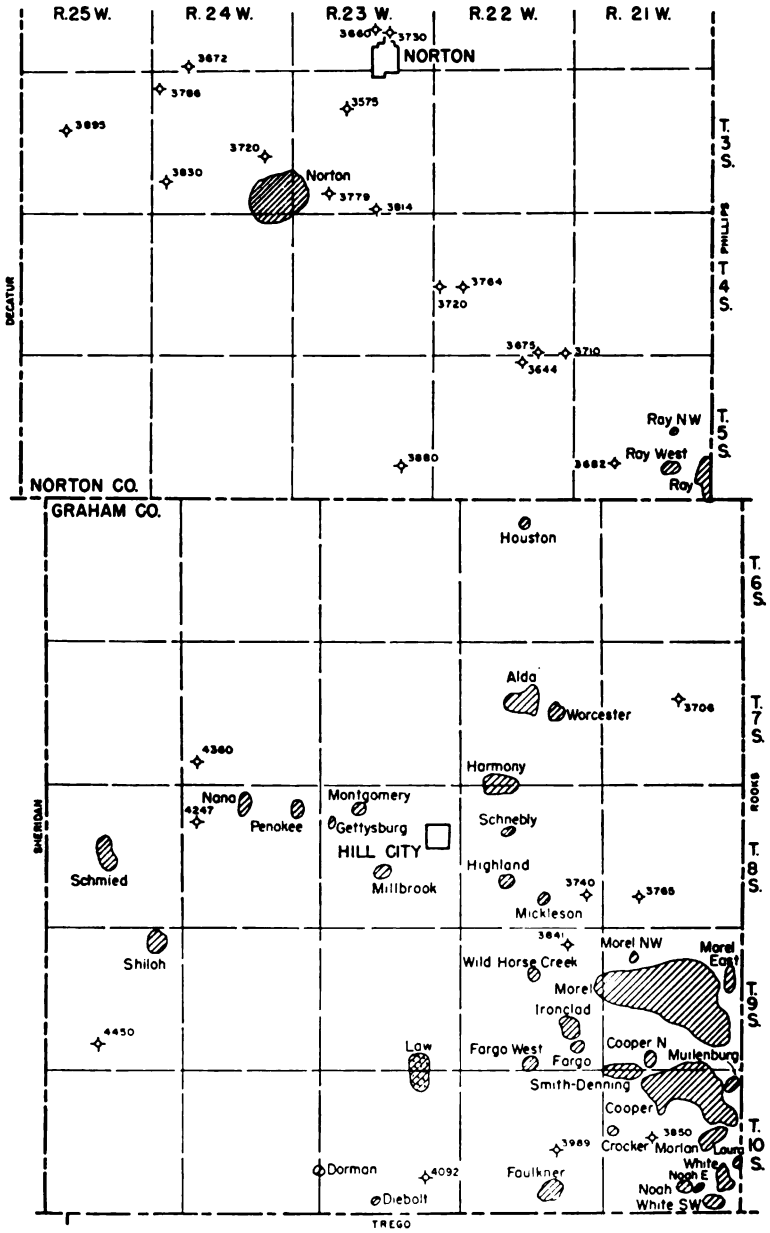


FIG. 5.—Map of Graham and Norton Counties.

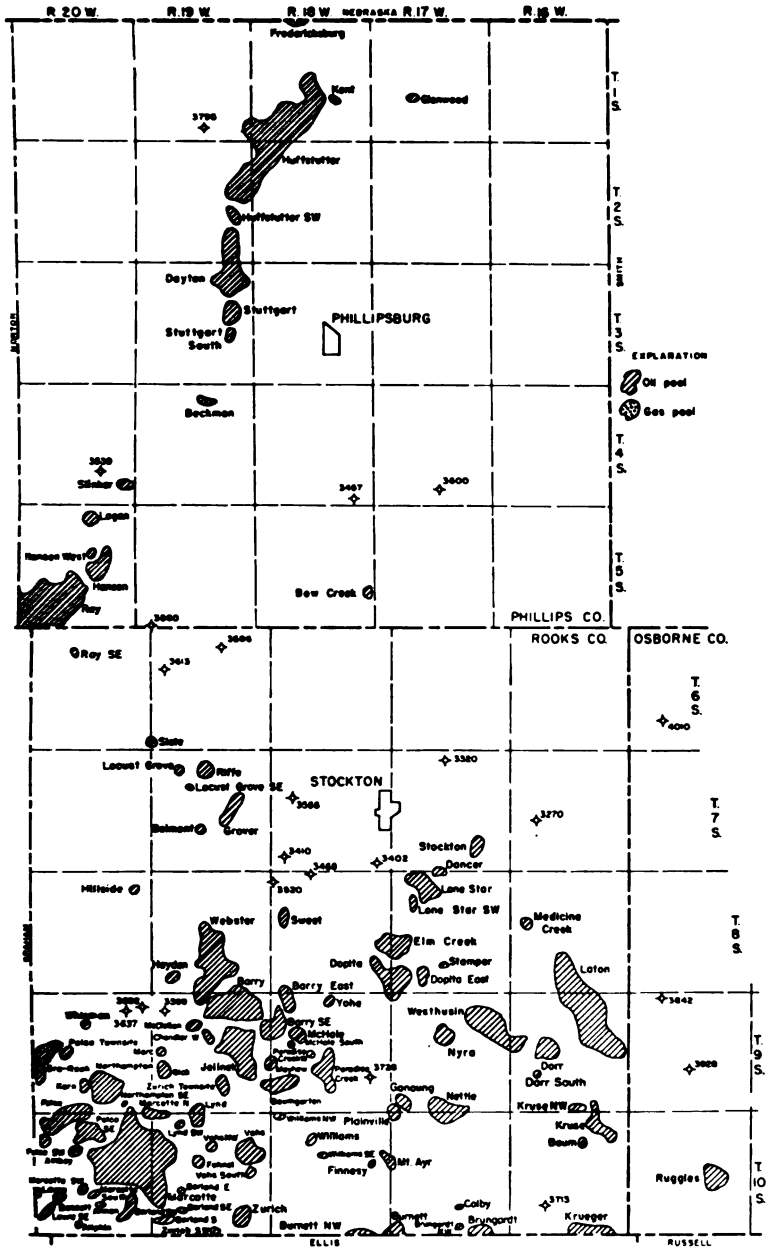
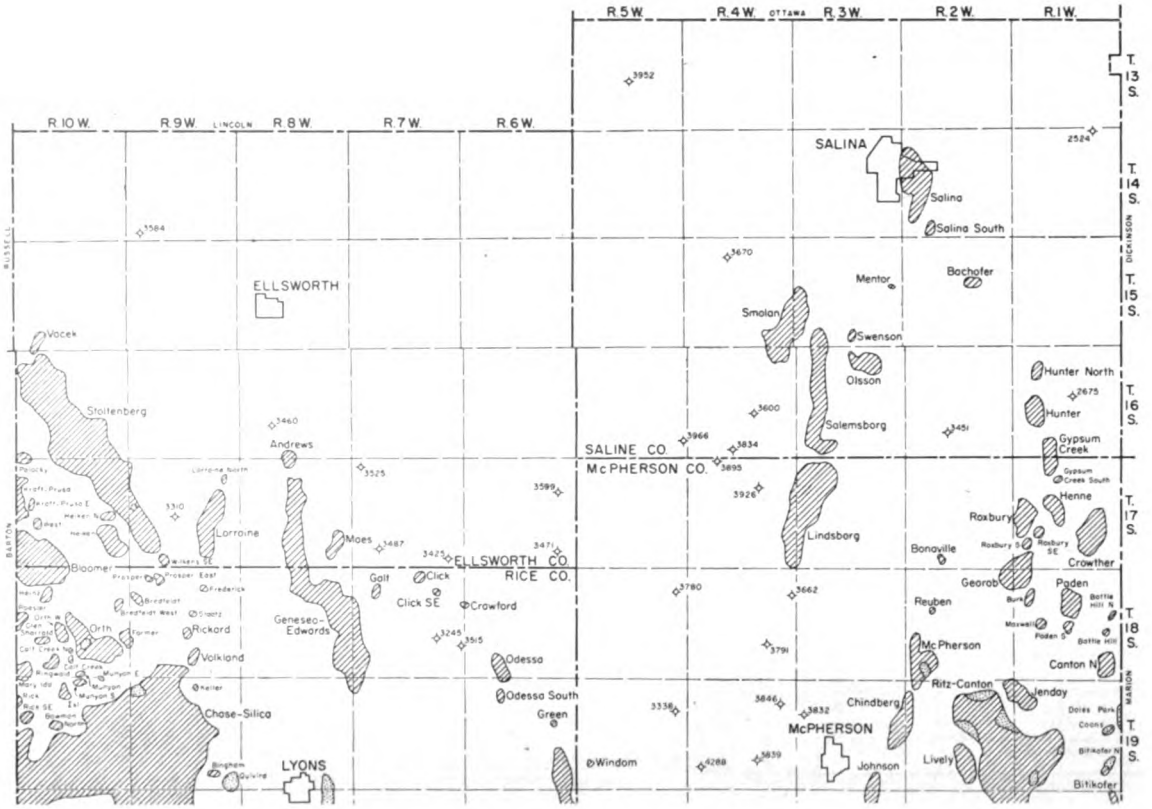


FIG. 6.—Map of Phillips and Rooks Counties and part of Osborne County.



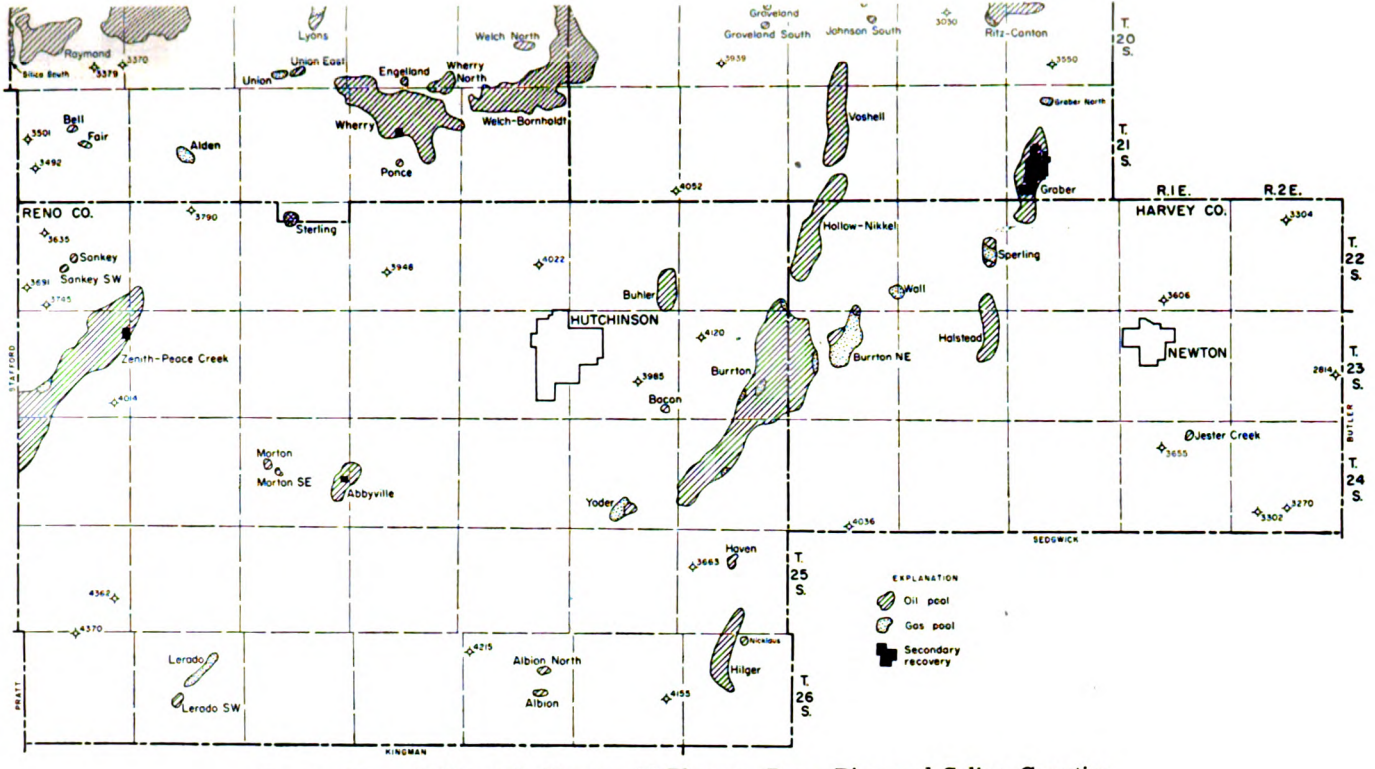


FIG. 7.—Map of Ellsworth, Harvey, McPherson, Reno, Rice, and Saline Counties.

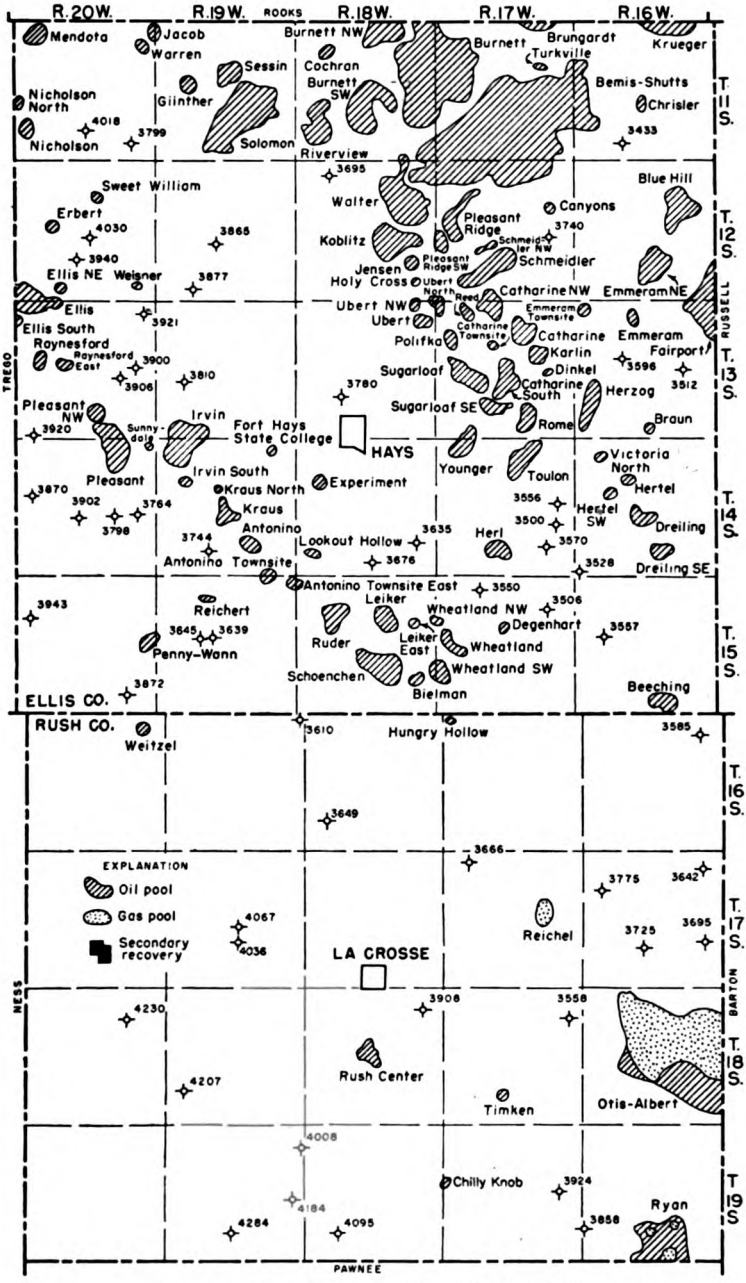


FIG. 8.—Map of Ellis and Rush Counties.

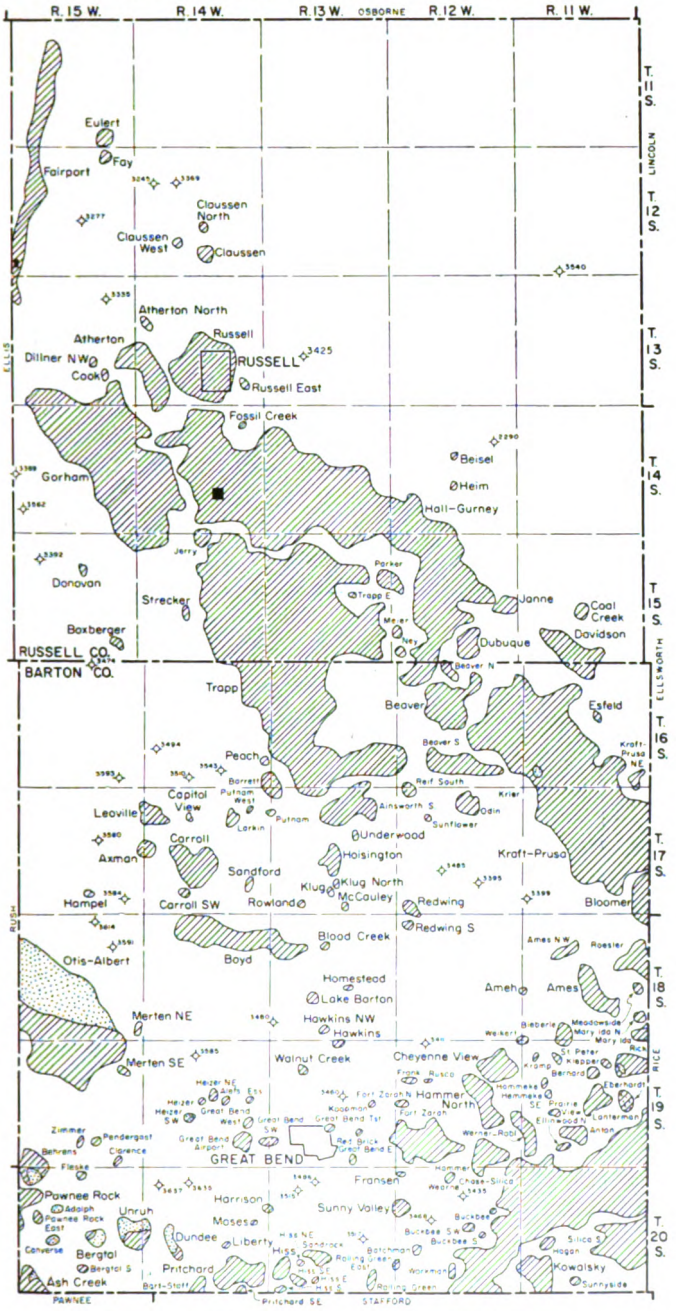


FIG. 9.—Map of Barton and Russell Counties.

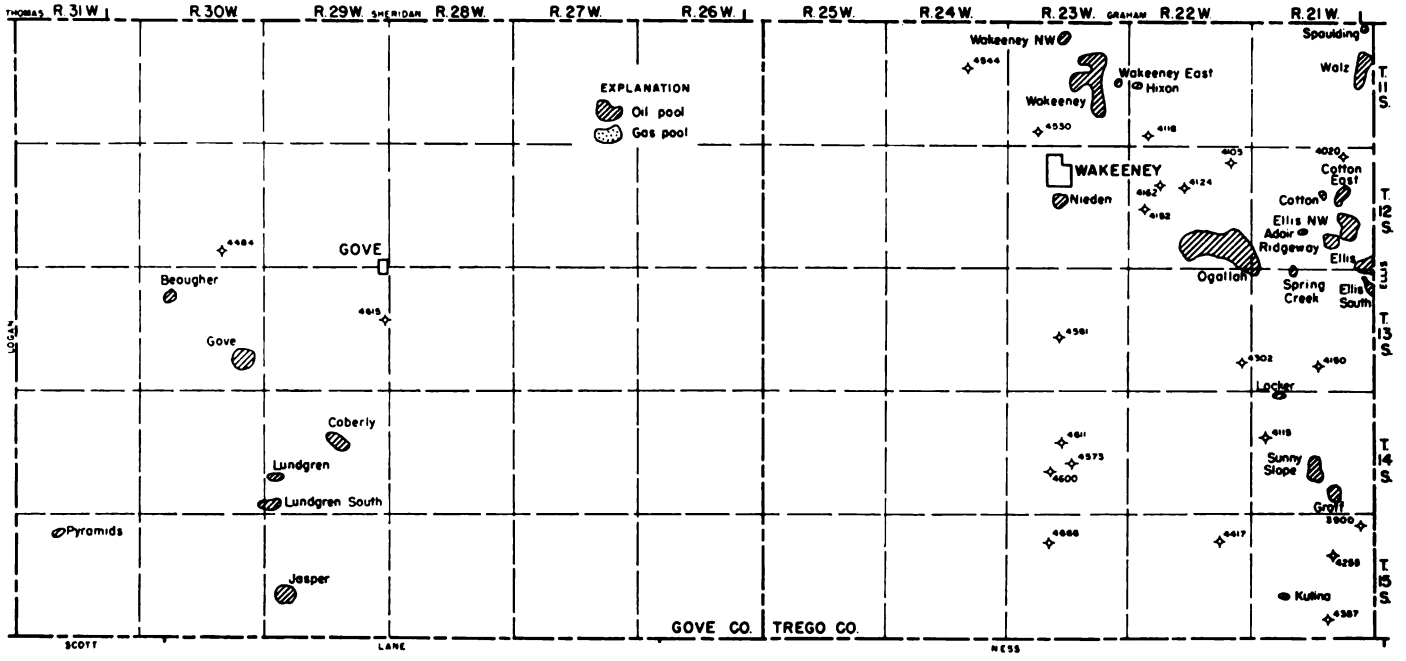


FIG. 10.—Map of Gove and Trego Counties.

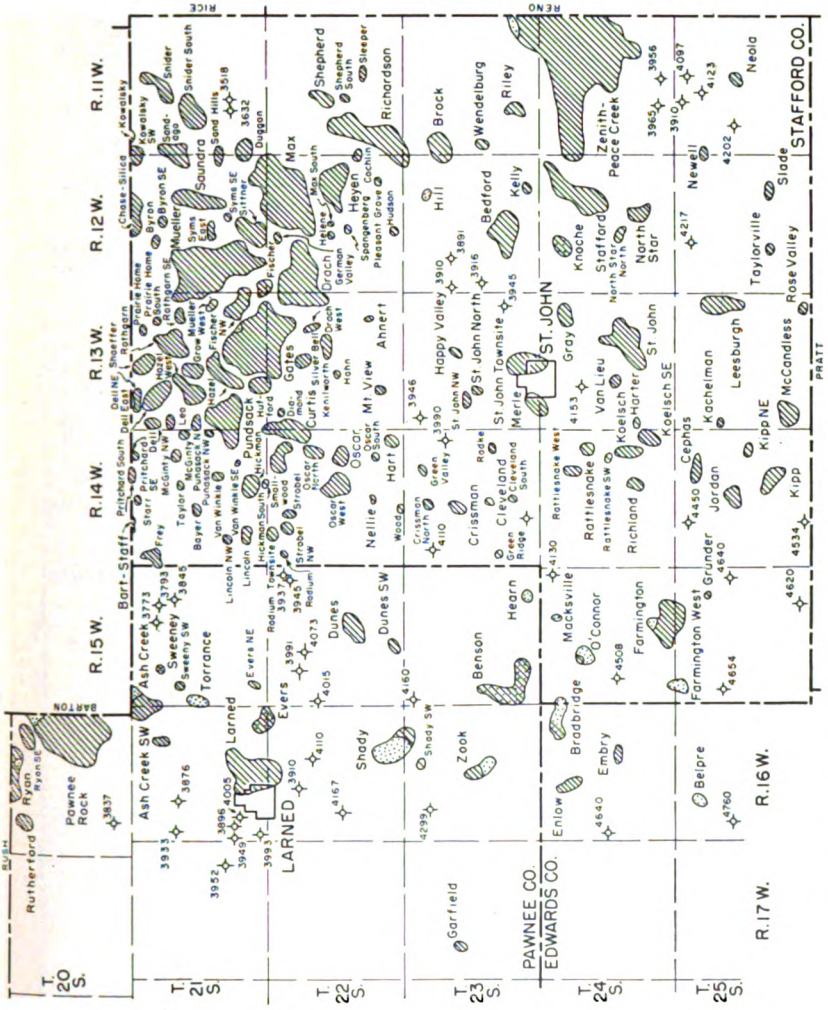


Fig. 11.—Map of Stafford and parts of Edwards and Pawnee Counties.

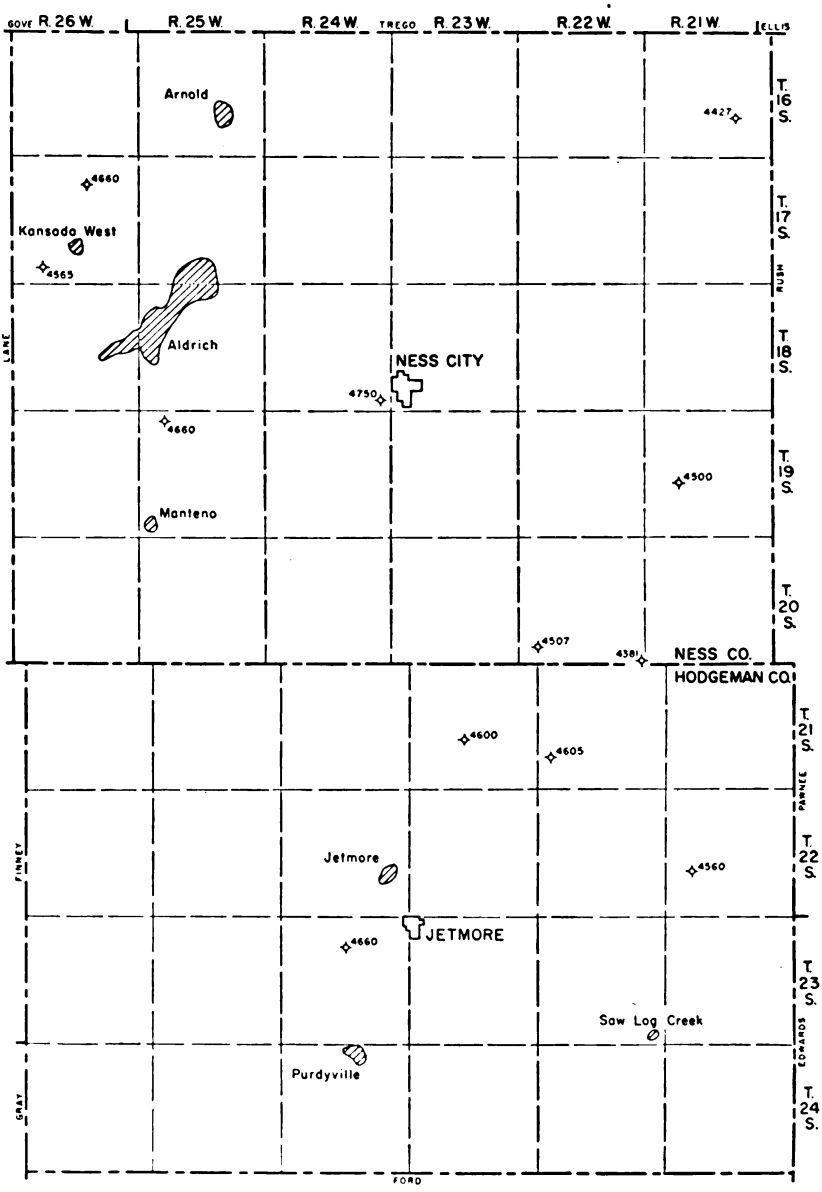


FIG. 12.—Map of Hodgeman and Ness Counties.

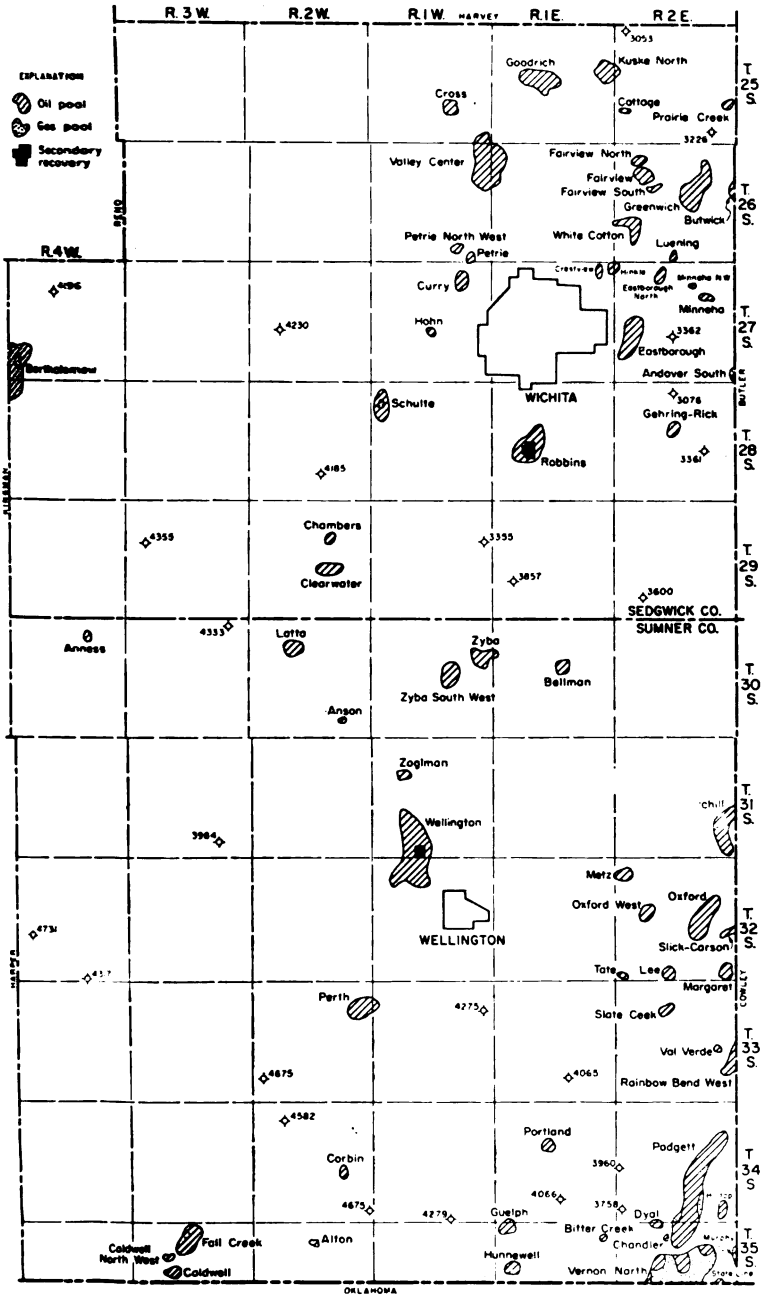


FIG. 13.—Map of Sedgwick and Sumner Counties.

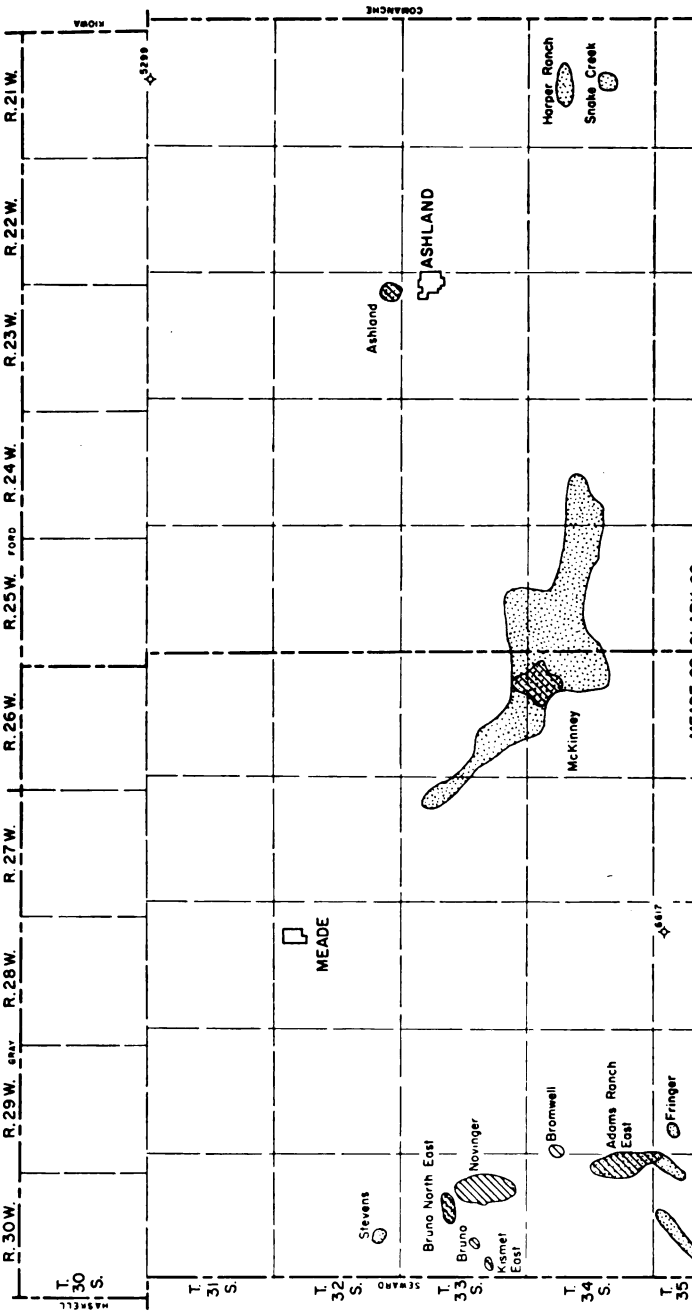


FIG. 14.—Map of Meade and Clark Counties.

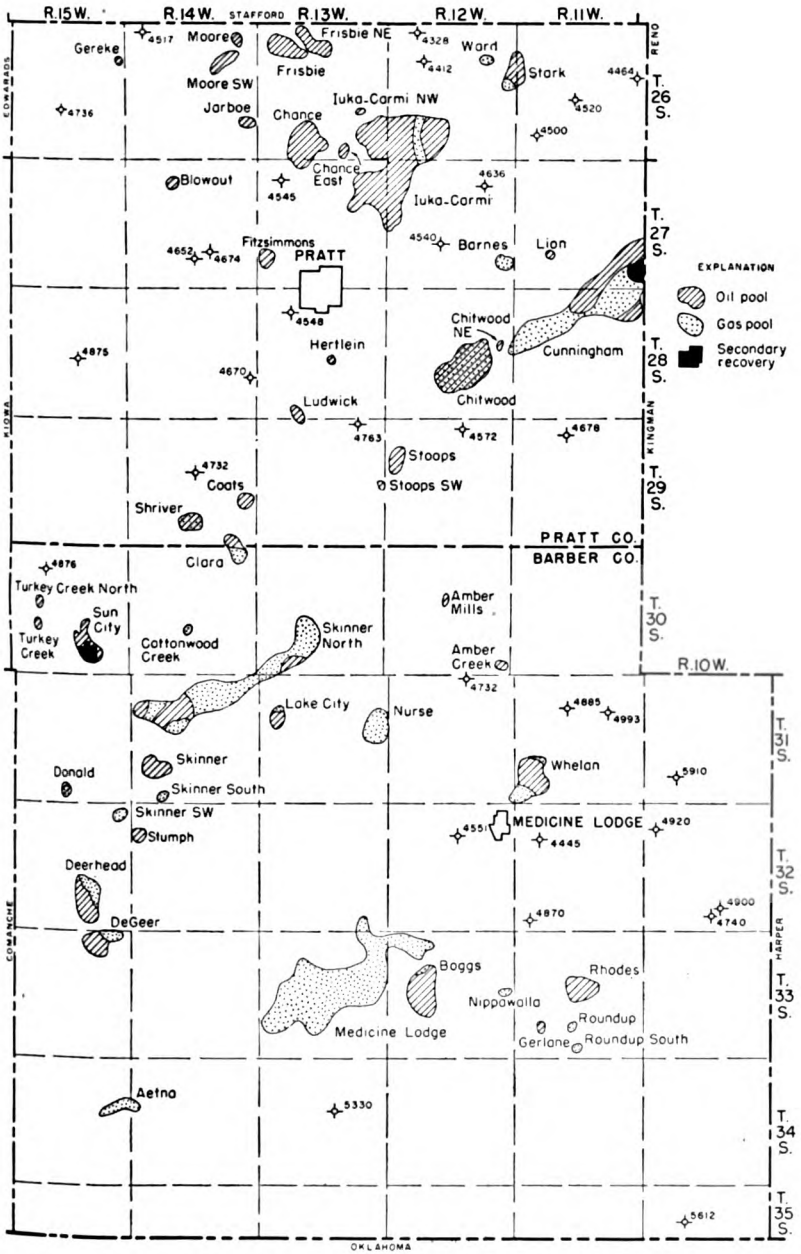


Fig. 15.—Map of Barber and Pratt Counties.

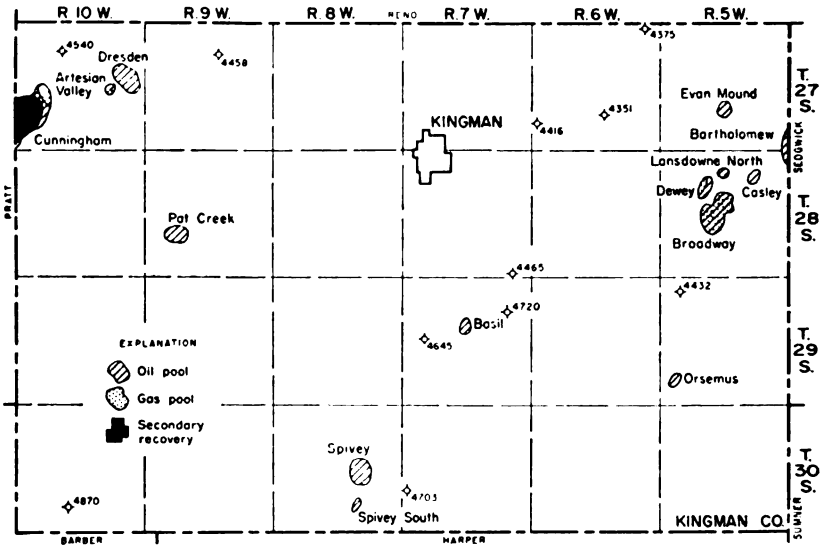


FIG. 16.—Map of Kingman County.

ALLEN COUNTY

(Map Pl. 1)

The 1953 production: oil from 27 areas in 10 fields 613,418 barrels including approximately 401,960 barrels from secondary operations, gas 357,136 thousand cubic feet. Wells drilled in 1953 (recorded): oil 75, gas 1, dry 11, input 34, total 121. Estimated total 125.

Developments during 1953.—Oil production in Allen County increased modestly over 1952. The greatest drilling activity reported was in the **Humboldt-Chanute** field in connection with water-flooding operations. It is estimated that 125 or more wells were drilled in the county. Several were completed by hydraulic fracturing methods.

Oil production in Allen County fields is listed in Table 56. Gas production is listed in Table 57. Locations of areas that produced oil in 1953 and of secondary recovery projects are shown on Plate 1. Secondary recovery data are recorded in Table 1.

ANDERSON COUNTY

(Map Pl. 1)

The 1953 production: oil from 17 areas in 7 fields 653,126 barrels including 587,881 barrels from secondary projects. Wells drilled in 1953 (recorded): oil 28, dry 2 including 1 wildcat, input 19, total 49. Estimated total 60.

Developments during 1953.—Oil production showed a decided increase over that of 1952 when 576,882 barrels were reported. It is estimated that 60 or more wells were drilled in the county. Several were wells completed by hydraulic-fracturing methods.

A dry wildcat well was drilled to a total depth of 1,801 feet in sec. 9, T. 21 S., R. 18 E. It is the Berentz Drilling Company No. 1 Borror well.

Oil production in Anderson County fields is listed in Table 56, and gas production in Table 57. Locations of areas that produced oil in 1953 and of secondary recovery projects are shown on Plate 1. Data on secondary recovery projects are listed in Table 1.

BARBER COUNTY

(Map Fig. 15)

The 1953 production from 26 pools: oil 1,196,472 barrels, gas 6,644,619 thousand cubic feet. Wells drilled in 1953: oil 11, gas 14, dry 27, total 52 including 13 wildcats. New pools discovered 4, combined 1. Secondary recovery projects 1.

Developments during 1953.—Oil production in Barber County increased more than 200,000 barrels during 1953, while gas production showed a modest gain. The increase in oil production came mostly in the **Boggs** and **Rhodes** pools. Drilling activity increased to 52 wells, 8 wells more than 1952.

The four new pools discovered during 1953 were all gas pools, the **Roundup** pool being gauged at 163 barrels of oil per day also. The **Nurse** gas pool was opened in March by the Champlin Refining Company in sec. 23, T. 31 S., R. 13 W., producing from the Douglas group at about 3,600 feet depth. It was assigned a potential of more than 4 million cubic feet of gas per day. The test, which penetrated Arbuckle rocks without finding encouraging shows of oil, was plugged back and made into a gas well.

The **Roundup** pool was discovered by the Barbara Oil Company in sec. 28, T. 33 S., R. 11 W., on the Forester farm and the

Roundup South pool was brought in by the San Diego Corporation No. 1 Harbaugh well in sec. 33. Both pools produce gas from the Mississippian, **Roundup South** being carried as a shut-in well. Both discovery wells also were carried into Arbuckle rocks before being plugged back.

The **Skinner Southwest** gas pool was discovered by Isern Brothers in sec. 1, T. 32 S., R. 15 W., on the Skinner farm, where the Douglas group was gauged at more than 2 million cubic feet of gas per day.

Mississippian rocks were declared a new gas producing horizon in the **DeGeer** field and the Douglas in the **Whelan.** Data on these developments are given in Table 7. The **Medicine Lodge** and **Medicine Lodge Northeast** fields were combined during the year.

TABLE 18.—*Dry wildcat tests drilled in Barber County during 1953*

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
Sinclair Oil & Gas Co. No. 1 Moffett	NE¼ NW¼ NW¼ 9-30-15W	4,069	4,620	4,850	4,876
*O. T. Shaw No. 1 McReynolds	NW¼ NE¼ SW¼ 29-31-10W	3,820	4,668	4,861	5,910
*Musgrove Petro. Corp. No. 1 "B" Smith	NE¼ NW¼ SE¼ 9-31-11W	3,952	4,790	.....	4,885
Petroleum, Inc. No. 1 Bergner	SE¼ SE¼ SW¼ 11-31-11W	3,932	4,764	4,962	4,993
W. C. Doenges No. 1 Haas	NW¼ NW¼ NE¼ 3-31-12W	3,749	4,495	4,692	4,732
Hanco Oil & Gas Co. No. 1 McKeever	NW¼ NE¼ NW¼ 7-32-10W	3,721	4,688	4,886	4,920
Westpan Hydrocarbon Co. No. 1 Belton	SW¼ SW¼ SE¼ 27-32-10W	3,649	4,670	4,888	4,900
*Westpan Hydrocarbon Co. No. 2 Belton	SE¼ NW¼ NW¼ 34-32-10W	3,679	4,721	.....	4,740
*Transit Corp. No. 1 Med. Lodge Peace Treaty	NE¼ NE¼ SE¼ 7-32-11W	3,781	.....	.....	4,445
Skelly Oil Co. No. 1 L. E. McClure	SW¼ NW¼ SW¼ 31-32-11W	3,710	4,583	4,822	4,870
*Musgrove Petro. Corp. No. 1 Fitzsimmons	SE¼ SE¼ NW¼ 10-32-12W	3,698	4,515	.....	4,551
The Palmer Oil Corp. No. 1 Schupback	SE¼ SW¼ NE¼ 15-34-13W	4,045	5,039	5,297	5,330
*Vickers Exp. Ltd. No. 1 Schupback	NW¼ NW¼ NW¼ 16-35-10W	4,322	5,296	5,595	5,612

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

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

New pools are listed in Table 6. Data on dry wildcats are given in Table 18 and Figure 15 shows the location of producing areas and dry wildcats. Oil production is given in Table 56, and gas production in Table 57.

BARTON COUNTY

(Fig. 9)

The 1953 production from 127 pools: oil 17,075,634 barrels, gas 2,530,856 thousand cubic feet. Wells drilled in 1953: oil 207, gas 4, dry 215, salt-water disposal 6, total 432 including 23 wildcats. New pools discovered 18, combined 11.

Developments during 1953.—Oil production increased about 75,000 barrels, while gas production declined a little, from the previous year. The total number of wells drilled in the county declined by 102 from the previous high of 534. Barton County maintained its rank as the leading oil-producing county and the county having the most wells drilled during the year.

Exploration in the county resulted in the naming of 17 new oil pools and 1 new gas pool. The new pools are the **Bieberle North, Buckbee South, Clarence, Converse** (gas), **Ess, Fleske, Great Bend Townsite, Hampel, Hawkins Northwest, Hiss Northeast, Koopman, Moses, Pendergast, Red Brick, Sunnyside, Thill, Weikert** and **Zimmer.** The discovery wells of the **Hampel, Sunnyside** and **Zimmer** pools were carried on the scout reports as dry holes, and no production was reported from the pools during 1953.

Among the new oil or gas zones discovered in old producing fields, the nomenclature committee listed the following; **Bieberle North, Ellinwood North, Heizer Southwest, Hiss East, Kramp, Pendergast,** and **Thill.** Of these the Arbuckle zone in the **Pendergast** was carried as a dry hole by scout reports. The data concerning these new producing strata are listed in Table 7.

During the year 11 pools were combined with other fields having the same producing strata and being declared common reservoirs: **Sadie, Roesler East,** and **Zink** with **Roesler; Bloomingdale** with **Ames Northwest; Thill** with **Anton; Feltes Northwest** with **Beaver; Kaufman** with **Beaver North; Bieberle North** with **Bie-**

TABLE 19.—*Dry wildcat tests drilled in Barton County during 1953*

Company and farm	Location	Depth to top of Lans.-K.C., feet	Depth to top of Arbuckle, feet	Total depth, feet
*Victor Drlg., Inc. No. 1 Sausen	NW¼ NW¼ NE¼ 30-16-14W	3,167	3,443	3,494
*Musgrove Petro. Corp. No. 1 Woodward	SE¼ SE¼ NE¼ 32-16-14W	3,240	3,502	3,510
*J. J. Lynn et al. No. 1 Ochs	NW¼ NW¼ NE¼ 34-16-14W	3,191	3,518	3,543
*B & R Drlg., Inc. No. 1 Shelton	NE¼ NE¼ NW¼ 3-16-15W	3,195	3,456	3,474
*H. E. Zoller No. 1 Martz	NE¼ NE¼ SE¼ 35-16-15W	3,254	3,560	3,593
Sohio Petro. Co. No. 1 Huslig	NW¼ NW¼ NW¼ 31-17-11W	3,058	3,349	3,399
*Gramehart-Miller Oil Co. No. 1 Werner	SW¼ SW¼ SW¼ 21-17-12W	3,196	3,451	3,485
*Dozier Oil Co. No. 1 Demel	SE¼ SE¼ NE¼ 27-17-12W	3,100	3,370	3,395
Shelley-Miller Drlg., Inc. No. 1 Menzer	SE¼ SE¼ NW¼ 15-17-15W	3,258	3,550	3,580
Mid Plains Oil Corp. et al. No. 1 Lichter	NE¼ NE¼ NE¼ 35-17-15W	3,283	3,564	3,584
*Ash-Mar Drlg. Co., Inc. No. 1 Kent	NW¼ NW¼ NW¼ 31-18-13W	3,160	3,468	3,480
Northern Pump Co. No. 1 A. Maneth	SE¼ NE¼ NW¼ 3-18-15W	3,297	3,558	3,614
Northern Pump Co. No. 1 Maneth	SW¼ SE¼ SW¼ 11-18-15W	3,266	3,541	3,591
*Pickrell Drlg. Co. No. 1 Held	NW¼ NE¼ NW¼ 5-19-12W	3,100	3,381	3,411
*Isern Drlg. Co. et al. No. 1 Woods	NW¼ NW¼ SE¼ 15-19-13W	3,190	3,425	3,460
*B-H-P No. 1 Evers	NE¼ NE¼ SE¼ 4-19-14W	3,237	3,565	3,585
*Ash-Mar Drlg Co., Inc. No. 1 Steckel	NW¼ NW¼ SE¼ 10-20-12W	3,134	3,381	3,435
*Alpine Oil & Royalty Co., Inc. No. 1 Christensen	NW¼ SE¼ SE¼ 17-20-12W	3,192	.....	3,468
Leon F. Huff No. 1 Weathers	SE¼ SW¼ NW¼ 4-20-13W	3,205	3,483	3,486
Duke & Wood Drlg. Co. No. 1 Nicolet	SE¼ SE¼ SW¼ 5-20-13W	3,212	3,467	3,515
The Palmer Oil Corp. et al. No. 1 Murphy	SW¼ SW¼ NE¼ 23-20-13W	3,246	3,507	3,517
*Honaker Drlg. Co. No. 1 Great Bend Airport	SW¼ SW¼ NW¼ 4-20-14W	3,253	3,572	3,635
*Shelley-Miller Drlg., Inc. No. 1 Koelsch	SW¼ SW¼ SE¼ 6-20-14W	3,307	3,607	3,637

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

berle; Sandrock South with **Sandrock**; and **Werner-Robl Northwest** and **Werner-Robl South** with **Werner-Robl**.

Of the 23 dry wildcat tests in the county, only 3 reported shows. Two of the unsuccessful ventures were near the abandoned **Millard** field, where the Arbuckle was tested.

During the year, 25 old wells were worked over in the county. Of these, 16 were declared oil wells, 5 dry, and 4 converted to salt-water disposal wells.

The **Kraft-Prusa** field added 33 new oil wells and only 8 dry holes during the year. The new **Anton** field had 20 oil and 3 dry and the new **Bieberle** pool had 16 oil, 7 dry during the year.

Oil production by fields is given in Table 56, gas production in Table 57, and wildcat well data in Table 19. The new pools are listed in Table 6. Figure 9 shows the oil and gas pools and the dry wildcat tests.

BOURBON COUNTY

(Map Pl. 1)

The 1953 production: oil from 7 areas in 3 fields 38,035 barrels. Wells drilled in 1953: dry 2.

Developments during 1953.—Oil production in Bourbon County was considerably less in 1953 than in 1952 when 56,984 barrels were reported. Two dry pool wells, one in the **Hepler** field, and one in the **Schlegel** field, were reported.

Oil production in Bourbon County in 1953 is listed in Table 56. Areas that produced oil and of secondary recovery projects are shown on Plate 1. Information on water-flooding projects is listed in Table 1.

BROWN COUNTY

(Map Pl. 1)

There was no reported production or drilling in Brown County during 1953. Cumulative production for the **Livengood** field is shown in Table 56.

BUTLER COUNTY

(Map Pl. 1)

The 1953 production from 65 fields: oil 8,615,810 barrels including 2,307,709 barrels from secondary recovery operations. Wells drilled in

1953: oil 196, dry 113, input and / or salt-water disposal 50, LPG storage 3, total 362 including 13 dry wildcats. New pools discovered 3.

Developments during 1953.—Three new oil fields were opened in Butler County in 1953. The **Fox-Bush West** which produces from "Bartlesville sand" between 2,837 and 2,848 feet was opened by the Rex & Morris Drilling Company No. 1 Young well in the NW¼ NE¼ NE¼ sec. 15, T. 29 S., R. 5 E. Initial daily production of the well was 30 barrels of oil. Two additional oil wells were reported in the field during the year. The Rex & Morris Drilling Company No. 1 Marshall well, NE¼ SW¼ SW¼ sec. 11, T. 26 S., R. 7 E., opened the **Long Northeast** field. Initial daily production of 25 barrels of oil was reported from Mississippian limestone between 2,753 and 2,758 feet. Three dry holes were drilled in the field during the year. "Bartlesville sand" between 2,757 and 2,765 feet yields oil in the **Mt. Tabor** field which was opened by the Stelbar Oil Corporation No. 1 Stolebarger well in the Cen. N½ NE¼ NW¼ sec. 36, T. 29 S., R. 4 E. The well was rated at 25 barrels of oil per day. Two additional oil wells and two dry holes were reported in the field during the year.

Of the 1953 production, 3,891,884 barrels came from the **El Dorado** field whose cumulative production is more than 215 million barrels. Reported drilling in the field in 1953 included 63 new oil wells, 9 dry holes, and 45 input wells. Other drilling activities, except the 16 wildcat wells (3 of which opened new fields), were more or less evenly distributed in the established fields.

Oil production in the various Butler County fields is listed in Table 56. Locations of areas that produced oil in 1953 and of secondary recovery operations are shown on Plate 1. Data on waterflooding operations are listed in Table 1. Dry wildcat wells drilled in the county in 1953 are listed in Table 20. Data on new pools are listed in Table 6.

CHASE COUNTY

(Map Pl. 1)

The 1953 production from 3 fields: oil 30,584 barrels, gas 69,530 thousand cubic feet. Wells drilled in 1953 (recorded): oil 1, 2 dry wildcats, total 3.

Developments during 1953.—Oil production in Chase County was slightly less in 1953 than in 1952 when 30,629 barrels were

TABLE 20.—*Dry wildcat tests drilled in Butler County during 1953*

Company and farm	Location	Depth to top of K.C., feet	Depth to top of Mississippian, feet	Total depth, feet
Rex & Morris Drlg. Co. et al. No. 1 Stucky	NW¼ NW¼ NE¼ 6-23-5E	2,065	2,435	2,878
Champlin Refg. Co. No. 1 Janzen	SW¼ SW¼ NE¼ 35-23-5E	1,966	2,434‡	2,481
*Hinkle Oil Co. et al. No. 1 Jansen	SW¼ SW¼ SE¼ 36-23-5E	2,030	2,462	2,755
*J. H. Wagner Drlg. Co. No. 1 King	NW¼ SW¼ NE¼ 22-24-4E	2,110	2,518	2,612
*Ward A. McGinnis et al. No. 1 Robblin	SE¼ SE¼ SW¼ 23-24-4E	2,933†	2,560	2,952
*R. J. Wixon Drlg. Co. No. 1 Kaufman	SE¼ SE¼ SW¼ 25-24-4E	2,205	2,690	2,868
*Raymond Gear et al. No. 1 Prewitt	SW¼ SW¼ NE¼ 2-24-7E	2,038	2,755	2,783
*Rex & Morris Drlg. Co. No. 1 Mosier	NE¼ NE¼ SE¼ 18-26-4E	2,208	2,720	3,004
The Texas Co. No. 1 H. C. Brown	NW¼ NE¼ SE¼ 3-26-6E	2,074	2,726	2,778
*J. P. Gaty et al. No. 1 Kiser	SE¼ SE¼ SW¼ 3-27-3E	2,263	2,728	3,084
J. P. Gaty No. 1 Wolfe	SE¼ SE¼ NE¼ 10-27-3E	2,280	2,720	3,079
*C. H. Spoor No. 1 Brandt Ranch	C N/2 SE¼ 5-29-7E	2,064	2,757	2,792
*C. H. Spoor, et al. No. 2 Brandt	C N/2 SE¼ 5-29-7E	2,073	2,769	2,797

* 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 Arbuckle, feet.

† Depth to the top of the Simpson, feet.

reported. Gas production for 1953 was estimated at 69,530 thousand cubic feet. One new oil well producing 89 barrels of oil and 100 barrels of water per day in the **Teeter** field was reported. Two Arbuckle tests were drilled in the county during the year. The Rex & Morris Drilling Company No. 1 Weber well, NW¼ NW¼ SW¼ sec. 32, T. 19 S., R. 6 E., was abandoned in November at a total depth of 2,390 feet. The following tops were reported: Lansing, 1,607; Pennsylvanian basal conglomerate, 2,117; Kinderhookian, 2,155; "Hunton," 2,213; Maquoketa, 2,265; Viola, 2,278; Simpson, 2,351; and Arbuckle 2,364 feet. In the Rex & Morris Drilling Co. No. 1 Olson well, NW¼ NE¼ NE¼ sec. 21, T. 20 S., R. 6 E., tops of various formations were found at these depths: Lansing, 1,625; Pennsylvanian basal conglomerate, 2,173; Missis-

sippian, 2,201; Kinderhookian, 2,286; "Hunton," 2,440; Maquoketa, 2,485; Viola, 2,488; Simpson, 2,547; and Arbuckle, 2,607 feet. The well was abandoned at 2,630 feet.

Oil production statistics for 1953 in Chase County are listed in Table 56, gas in Table 57. Locations of areas that produced oil in 1953 and of the two wildcat wells are shown on Plate 1.

CHAUTAUQUA COUNTY

(Map Pl. 1)

The 1953 production: oil from 39 areas in 18 fields 830,215 barrels including approximately 19,000 barrels from secondary recovery projects, gas 134,660 thousand cubic feet. Wells drilled in 1953 (recorded): oil 12, dry 5, input 1, total 18. Estimated total 50.

Developments during 1953.—Oil production in Chautauqua County in 1953 was considerably greater than in 1952, when 798,706 barrels were reported. With quite incomplete coverage, 1 oil well and 1 dry hole were reported in the **Brown-Sturgis** field; 3 oil wells and 1 dry hole in the **Elgin** field; 2 oil wells in the **Hale-Inge** field; 1 oil well in the **Lenitor** field; 2 dry holes in the **Niotaze** field, and 5 oil wells, 1 input well, and 1 dry hole in the **Peru-Sedan** field. No wildcat wells were reported although probably some were drilled. It is estimated that 50 or more wells were completed in the county during the year.

Data on oil production in Chautauqua County in 1953 are listed in Table 56, and on gas in Table 57. Locations of areas that produced oil are shown on Plate 1. Data on secondary recovery projects are given in Table 1.

CLARK COUNTY

(Map Fig. 14)

The 1953 production from 4 fields: oil 27,649 barrels; gas 697,936 thousand cubic feet. Wells drilled in 1953: oil 1, gas 3, dry 6, total 10 including 2 dry wildcats. New pools discovered 1. Pools combined 1.

Developments during 1953.—Production of oil and gas during 1953 in Clark County doubled the 1952 figures. Some oil was reported for the first time in the Clark County portion of the McKinney field.

The new gas field, the **Harper Ranch,** was opened by the United Producing Company, Inc., on the Harper Ranch in sec. 9, T. 34 S.,

R. 21 W. Initial production of more than 6 million cubic feet of gas per day was assigned the well which produces from Morrowan rocks at about 5,469 feet depth. An offset test by the same company in sec. 8 resulted in a dry hole.

Saturn Drilling Company drilled a dry wildcat on the Yeoman farm in the NE¼ NE¼ NE¼ sec. 3, T. 31 S., R. 21 W., in April, 1953. Drilling from an elevation of 2,257 feet above sea level, the Lansing-Kansas City was topped at 4,499 feet and the Mississippian rocks at 5,198 feet depth. Drill-stem tests in the Mississippian were not encouraging and the hole was stopped at the total depth of 5,299 feet. Peters, Writer, and Clark Christenson unsuccessfully reworked Skelly Oil Company's No. 1 Dunne test in sec. 4, T. 35 S., R. 23 W., which was declared dry.

The Theis gas field was declared by the Nomenclature Committee to have a Mississippian reservoir common to the McKinney field of Meade County, the combination extending the McKinney field into Clark County.

The new pool is described in Table 6. Locations of producing areas and dry wildcat tests are shown on Figure 14. Data on oil production are given in Table 56 and on gas production in Table 57.

CLAY COUNTY

(Map Pl. 1)

The 1953 production from 2 fields: none reported. Wells reported: 1 dry wildcat.

Developments during 1953.—One wildcat well was abandoned in Clay County in 1953. It is the Donald T. Ingling et al. No. 1 Faidley, Cen. NE¼ NE¼ SW¼ sec. 19, T. 10 S., R. 4 E., which was drilled to a total depth of 2,858 feet. Tops reported are as follows: Kansas City, 1,500; Mississippian "chat," 1,900; "Hunton," 2,168; Viola, 2,554; Simpson shale, 2,692; Simpson sand, 2,701; and Arbuckle 2,796 feet.

A location on the Bragen farm, in the SE¼ SE¼ SW¼ sec. 10, T. 9 S., R. 4 E., was reported as abandoned.

Location of the dry wildcat well is shown on Plate 1.

COFFEY COUNTY

(Map Pl. 1)

The 1953 production: oil 106,487 barrels from 14 areas in 7 fields: gas 11,324 thousand cubic feet. Wells drilled in 1953 (reported): oil 18, dry 11, total 29 including 2 dry wildcats. New pools discovered 1.

Developments during 1953.—Oil production in Coffey County was decidedly more than in 1952 when 85,651 barrels were reported. The increase is due principally to the relatively large number of wells that were completed by hydraulic fracturing. Reported production in the **Leroy** field increased from 1,168 barrels in 1952 to 8,485 barrels in 1953.

A "Burgess sand" pool, the **Finnerty,** was discovered in Coffey County in June 1953. The discovery well is the F. E. Lockhart and George Waite No. 1 Finnerty, Cen. N½ NW¼ SW¼ sec. 12, T. 21 S., R. 13 E. Production of 38 barrels of oil per day with no water was found at 1,728 feet. One additional oil well and 3 dry holes were drilled in the field later in the year. The second producer came in at 75 barrels of oil and 200 barrels of water per day.

In previously established Coffey County fields reported wells include: **Dunaway** field 2 dry holes, **Leroy** and **Leroy North** fields 14 oil wells and 2 dry holes, and **Winterscheid** field 2 oil wells.

Three dry wildcat wells were drilled in Coffey County in 1953. The Fees and Richard No. 1 Merritt, SW¼ SW¼ NE¼ sec. 32, T. 22 S., R. 14 E. was abandoned at a total depth of 1,582 feet. The top of the Mississippian limestone was reached at 1,030 feet in the Herbel & Tyrrell No. 1 Henning well, NW¼ NW¼ SW¼ sec. 22, T. 21 S., R. 16 E. The total depth of the well is 1,678 feet. A location in the SW¼ NE¼ SW¼ sec. 9, T. 23 S., R. 15 E. was reported abandoned.

Locations of areas in Coffey County that produced oil in 1953, and of the dry wildcat wells that were drilled during the year are shown on Plate 1. Oil production statistics are listed in Table 56, and gas in Table 57. The new pool is described in Table 6.

COMANCHE COUNTY

No 1953 production from 1 field. Wells drilled in 1953: gas 2, dry 6, total 8 including 3 dry wildcats. New fields discovered 1.

Developments during 1953.—During 1953 the first commercial production was found in Comanche County when the **Robbins**

Ranch gas pool was discovered by the Barbara Oil Company in the Osagian Series (Mississippian) in sec. 23, T. 31 S., R. 16 W. on the Robbins Ranch. The gas occurs between the depths of 4,915 and 4,930 feet in cherty limestones which here make up the uppermost section of the Mississippian sequence. Upon completion the discovery well gauged 1 million cubic feet per day; after hydrafrac had been used, it was gauged at nearly 7 million cubic feet per day. A second gas producer was completed in the same section in June. Three dry holes by the Barbara Oil Company were drilled in the vicinity of these two gas wells before the end of the year.

A deep dry test was drilled by the United Producing Company, Inc., on the McCleary farm in the Cen. NW¼ SE¼ sec. 35, T. 31 S., R. 18 W. Drilling from an elevation of 2,125 feet above sea level the following tops were reported: Lansing-Kansas City, 4,446; Mississippian, 5,116; Viola dolomite, 5,644; and the Arbuckle dolomite, 5,982 feet depth.

J. M. Huber Corporation drilled a deep dry wildcat test on the Lemon-Barbee property in the SW¼ SW¼ SW¼ sec. 30, T. 34 S., R. 19 W., penetrating the Arbuckle dolomite at 6,555 feet depth from an elevation above sea level of 1,730 feet. The hole was bottomed at 6,590 feet depth and important marker horizons encountered were: Lansing-Kansas City, 4,384; Mississippian, 5,208; and Viola dolomite, 6,180 feet depth.

Drilling from an elevation of 2,027 feet above sea level, J. M. Huber Corporation completed a Mississippian dry wildcat test on the Ellis property in the Cen. N½ NW¼ NW¼ sec. 1, T. 32 S., R. 20 W. The Mississippian was reported at 5,137 feet depth and the hole was abandoned at 5,240 feet total depth.

The new gas field is listed in Table 6 and Table 57.

COWLEY COUNTY

(Map Pl. 1)

The 1953 production: oil from 78 fields 3,197,324 barrels including approximately 267,574 barrels from secondary recovery operations, gas 1,147,183 thousand cubic feet. Wells drilled in 1953 (reported): oil 219, gas 3, dry 156, salt-water disposal 3, total 381 including 14 dry wildcats. New pools 11, combined 8, abandoned 1.

Developments during 1953.—As in 1952, Cowley County in 1953 outranked all other eastern counties in pool discoveries. The **Burden East,** a "Layton sand" pool, was found by The Texas Com-

pany No. 1 C. F. Jarvis well, NW¼ SW¼ NW¼ sec. 33, T. 31 S., R. 6 E. The reservoir was reached at 2,194 feet. Production amounting to 80 barrels of oil per day was established. During the year 21 additional oil wells, 4 dry holes, and 1 disposal well were drilled in the field. The C. K. Gilliland No. 1 McEwen well, SE¼ NE¼ SE¼ sec. 9, T. 34 S., R. 8 E. discovered the **Cedarvale,** a Mississippian limestone pool between depths of 2,365 and 2,375 feet. Initial daily production was rated at 15 barrels of oil. The **Centennial,** a "Bartlesville sand" pool between 3,267 and 3,271 feet, was found by the Laura Jane Oil Company No. 1 Allen well, SW¼ SW¼ NW¼ sec. 12, T. 33 S., R. 3 E. Initial production was 25 barrels of oil per day. The **Centennial North** pool was found by the K. T. Wiedemann No. 1 Shane well, NE¼ NE¼ SW¼ sec. 1, T. 33 S., R. 3 E. The pool is in the "Bartlesville sand" between 3,256 and 3,270 feet. The well was rated at 10 barrels of oil per day. The McNeish & Gralapp No. 1 O'Hara well opened the **David Northwest** field, when "Bartlesville sand" production was found between 2,936 and 2,950 feet. The well was rated at 50 barrels of oil per day. The **Enterprise Southwest, a** "Bartlesville sand" pool, was found by the Drillers Production Co., Inc. No. 1 Godfrey well, NW¼ NE¼ NE¼ sec. 3, T. 34 S., R. 3 E. The producing zone is between depths of 3,360 and 3,370 feet. Initial daily production amounted to 42 barrels of oil per day. One dry hole was drilled in the field. The discovery well of the **Maddix** Mississippian pool is the Wentworth & Sons No. 1 Maddix, NW¼ NW¼ NW¼ sec. 13, T. 33 S., R. 5 E. The discovery well was rated at only 8 barrels of oil per day and the field was abandoned before the close of the year. The **School Creek North,** a "Layton sand" pool between depths of 2,114 and 2,200 feet was discovered by the Fred Ayesh and Frank Taylor No. 1 Beamer well, SE¼ SE¼ NE¼ sec. 10, T. 32 S., R. 7 E. Initial daily production of 25 barrels of oil and 2,000,000 cubic feet of gas was established. The **Silver Creek** is a "Bartlesville sand" pool between depths of 3,050 and 3,058 feet that was discovered by the McNeish & Gralapp et al. No. 1 Miller well. The discovery well was rated at 75 barrels of oil per day. Another "Bartlesville sand" pool, the **Stayton South,** was found by the Laura Jane Oil Company, Inc. No. 1 Hoornbeck well, SE¼ SE¼ NW¼ sec. 5, T. 33 S., R. 4 E. The reservoir is between depths of 3,165 and 3,188 feet. The discovery well was rated at 234 barrels of oil per day. One other oil well and 4 dry holes were drilled

in the field. The **Wiebe, a** "Layton sand" pool was discovered by The Texas Co. No. 1 O. H. Wiebe well, NE¼ NW¼ NW¼ sec. 28, T. 31 S., R. 6 E. The reservoir is between depths of 2,220 and 2,226 feet. The initial daily production was more than 3 million cubic feet of gas.

In addition to the field openers 14 dry wildcat wells were drilled in Cowley County in 1953. Data on these wells are listed in Table 21. Drilling was active in the previously established fields, and new producing wells combined several fields in the county. These extension wells chiefly were completed by hydraulic fracturing. The **Fussell** was combined with the **Canfield.** The **David Northwest** and **David South** fields were combined with the **David.**

TABLE 21.—*Dry wildcat tests drilled in Cowley County during 1953*

Company and farm	Location	Surface elevation, feet	Depth to top of K.C., feet	Depth to top of Mississippian, feet	Total depth, feet
*Earl F. Wakefield No. 1 Turley	SE¼ NE¼ SW¼ 5-31-3E	1,268	2,597	3,168	3,189
*Laura Jane Oil Co., Inc. et al. No. 1 Bonewell	NE¼ NW¼ NW¼ 25-31-3E	1,175	2,438	.....	3,025
Gross Drlg. Co. No. 1 Watt	NW¼ SE¼ NW¼ 32-31-7E	1,246	2,044¶	.....	2,085
*Brodbeck & Smitherman No. 1 Andes	NW¼ NW¼ SW¼ 29-32-3E	1,133	.....	3,189	3,200
Earl F. Wakefield No. 1 Ebert‡	NE¼ NW¼ NW¼ 19-32-4E	1,197	2,610	3,138	3,502
*John Lindas Oil, Inc. et al. No. 1 Alspaugh	SW¼ SW¼ SE¼ 34-32-4E	1,113	2,529	3,056	3,092
Earl F. Wakefield No. 1 Snyder	SW¼ SW¼ SW¼ 25-32-7E	1,397	2,341	2,949	2,985
Gross Drlg. Co. No. 1 Berrie	SE¼ SW¼ NW¼ 24-33-3E	1,163	2,805	3,332	3,338
McNeish & Gralapp No. 1 Coulson	SW¼ SW¼ NW¼ 21-33-4E	1,155	.....	3,183	3,193
*Herndon Drlg. Co. No. 1 Devore	NW¼ NW¼ SW¼ 3-33-5E	1,236	2,590	3,140	3,175
*Martin & Cash Drlg. Co. No. 1 McClure	SW¼ SW¼ NE¼ 35-34-4E	1,093	2,634	3,212	3,216
*Aladdin Petro. Corp. No. 1 Brooks	NW¼ NW¼ NW¼ 15-35-3E	1,169	.....	3,514	3,566
*H & M Drlg. Co. No. 1 Warren	SE¼ NE¼ NE¼ 18-35-5E	1,185	2,663	3,195	3,224
*Earl F. Wakefield No. 1 Casement	NE¼ NW¼ SE¼ 11-35-4E	1,153	2,738	3,245	3,295

* 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 "Layton", feet.
‡ Depth to the top of the Arbuckle, 3,468 feet.

The **Baird, Geuda Springs,** and **Hower** are now known as the **Geuda Springs** field. The combined **Harvey Northwest, Harvey,** and **Baird East** are now the **Harvey** field. The **Esch** was combined with the **Rahn** field.

Oil production in the various Cowley County fields is listed in Table 56, gas in Table 57. Data on secondary recovery operations are listed in Table 1. Locations of areas in Cowley County that produced oil in 1953, and locations of secondary recovery projects are shown on Plate 1. New pools are listed in Table 6.

New producing zones in old fields were named as follows: **Canfield,** "Layton sand" and Kansas City; and **Harvey,** "Layton." Data on these new zones are given in Table 7.

CRAWFORD COUNTY

(Map Pl. 1)

The 1953 production: oil 55,008 barrels from 7 fields including approximately 34,672 barrels from secondary recovery projects, gas 45,124 thousand cubic feet. Wells drilled in 1953 (reported): oil 18, dry holes 2, repressuring 13, total 33. Estimated total 50.

Developments during 1953.—Oil production in Crawford County showed a considerable increase over that of 1952, when 47,270 barrels was reported. Five oil wells, 1 dry hole, and 4 repressuring wells were reported in the **McCune** field; 3 oil wells and 1 dry hole were reported in the **Monmouth** field; 8 oil wells and 9 input wells were reported in the **St. Paul - Walnut** field.

Oil production in the Crawford County fields is listed in Table 56, gas in Table 57. Locations of areas that produced oil in 1953 and of water-flooding projects are shown on Plate 1. Secondary recovery data are listed in Table 1.

DECATUR COUNTY

(Map Fig. 4)

The 1953 production from 7 pools: oil 249,135 barrels. Wells drilled during 1953: oil 12, dry 14, total 26 including 6 dry wildcats. New pools discovered 2.

Developments during 1953.—Oil production from **Decatur** County increased by about 45 percent the previous year's figure, although the number of wells drilled dropped from 43 to 26 in 1953.

Two of the wildcat tests in the county during 1953 were successful in finding new oil pools. The **Pollnow** Lansing-Kansas City pool was discovered by the Anderson-Prichard Oil Corporation in their first test on the Pollnow farm in sec. 4, T. 3 S., R. 29 W. The test was drilled into Pre-Cambrian rocks before being plugged back to produce with an initial potential of 75 barrels of oil per day at depths of 3,734 to 3,741 feet. An offset test to the north by the Ashland Oil and Refining Company was dry.

The **Pollnow West** Lansing-Kansas City pool was brought in by M. B. Armer on the Schultz farm in sec. 5, T. 3 S., R. 29 W., with an assigned initial potential of 244 barrels of oil per day from 3,744 to 3,750 feet depth. An offset test to the north by the Franco-Central Oil Company was also successful in bringing in Lansing-Kansas City production, while a test by Sauvage and Dunne to the south of the Schultz well found water in the pay zone.

Seven extension oil wells were added to the **Jennings** pool, and two to the **Hardesty** pool.

Of the six dry wildcat tests drilled in the County, five penetrated the Arbuckle and one, the W. W. Sauvage Fee test in sec. 23, T. 3 S., R. 29 W., reported granite wash at 4,269 feet depth. The dry wildcat tests are described in Table 22. The locations of producing pools and dry wildcat tests are shown on Figure 4. Oil production is given in Table 56, and the two new pools are listed in Table 6.

TABLE 22.—*Dry wildcat tests drilled in Decatur County during 1953*

Company and farm	Location	Surface elevation, feet	Depth to top of Lans.-K.C., feet	Depth to top of Arbuckle, feet	Total depth, feet
*W. W. Sauvage No. 1 State Lake	NW¼ SW¼ NE¼ 32-2-28W	2,558	3,554	4,069	4,100
*Sauvage & Dunn Drlg. Co., Inc. No. 1 Fee	SW¼ SW¼ NW¼ 36-2-29W	2,670	3,686	4,186	4,206
Musgrove Petro. Corp. No. 1 Woodward	NW¼ NW¼ SW¼ 21-3-26W	2,641	3,632	4,057	4,107
Musgrove Petro. Corp. No. 1 Bailey	SW¼ SW¼ SW¼ 14-3-27W	2,657	3,600	4,014	4,060
Anderson-Prichard Oil Corp. No. 1 Nitsch	SE¼ SE¼ SE¼ 3-3-29W	2,622	3,633	4,144	4,188
W. W. Sauvage No. 1 Fee	NE¼ NE¼ SE¼ 23-3-29W	2,659	3,805	.....	4,337

*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 Dickinson County during 1953*

Company and farm	Location	Surface elevation, feet	Depth to top of Lans.-K.C., feet	Depth to top of Mississippian, feet	Total depth, feet
*Donald T .Ingling et al. No. 1 Gans‡	SE¼ SW¼ NE¼ 4-12-3E	1,231	1,586°	2,166	3,039
*The Lotus Oil Co. No. 1 Foster	NW¼ SE¼ NE¼ 29-14-4E	1,284	1,630	2,156	2,170
*Beardmore Drlg. Co. et al. No. 1 Book	SW¼ SW¼ SW¼ 24-15-2E	1,272	1,735	2,375	2,415
*J. H. Wagner Drlg. Co. No. 1 Schlesener	SE¼ NW¼ SE¼ 13-15-3E	1,350	1,962°	2,340	2,428
*The El Dorado Refg. Co. No. 1 Keining	NW¼ NW¼ SE¼ 5-16-4E	1,354	2,096°°	2,273	2,313

* 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 Arbuckle, 3,024 feet.
° Depth to the top of the Kansas City, feet.
°° Depth to the base of the Kansas City, feet.

DICKINSON COUNTY

(Map Pl. 1)

The 1953 production from 4 fields: oil 102,474 barrels. Wells drilled in 1953 (reported): oil 2, dry 6, total 8 including 5 dry wildcats.

Developments during 1953.—There was a slight decline in oil production in Dickinson County in 1953. The previous year 108,313 barrels were reported.

One oil well and 1 dry hole were reported in the **Lost Springs** field, and 1 oil well was reported in the **Lost Springs Northeast** field. Data on 5 dry wildcat tests that were put down in the county in 1953 are listed in Table 23.

Oil production in Dickinson County fields is listed in Table 56. Locations of areas that produced oil in 1953 are shown on Plate 1.

DOUGLAS COUNTY

(Map Pl. 1)

The 1953 production from 1 field: oil 2,000 barrels (estimated).

Developments during 1953.—Oil production in Douglas County is in the **Baldwin** field in the southeast part of the county. Small amounts of gas were produced for local consumption in the **Eudora** and **Lawrence** fields. One or more wells were drilled in the **Baldwin** area.

Oil production is listed in Table 56. The locations of areas that produced oil in 1953 are shown on Plate 1.

EDWARDS COUNTY

(Map Fig. 11)

The 1953 production from 4 pools: oil 28,024 barrels; gas 205,319 thousand cubic feet. Wells drilled during 1953: oil 5, dry 5, total 10 including 5 dry wildcats. New pools discovered 2.

Developments during 1953.—With the successful completion of five new oil wells, the oil production from Edwards County increased about 4,000 barrels in 1953. Gas production decreased modestly.

The **Enlow,** a Lansing-Kansas City pool, was discovered by the Natural Gas and Oil Corporation in their first test on the Enlow property in sec. 9, T. 24 S., R. 16 W., from depths of 3,736 to 3,743 feet. The initial potential of the discovery well was reported as 379 barrels of oil per day. The test was taken into the granite before being plugged back to the pay zone. Three offset tests were successful in finding oil in Lansing-Kansas City rocks.

The second new Edwards County oil pool, the **Embry,** resulted from the reworking of an old hole on the Embry property by Branine-Holl in sec. 23, T. 24 S., R. 16 W., where Lansing-Kansas City production was found from 3,789 to 3,793 feet depth. A later test by the same company in sec 22 found commercial production in the same zone.

TABLE 24.—*Dry wildcat tests drilled in Edwards County during 1953*

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
*Bay Petro. Corp. No. 1 Lippoldt	NW¼ NW¼ NE¼ 18-23-19W	3,962	4,722	4,902	4,975
Natural Gas & Oil Corp. et al. No. 1 Campbell	SE¼ SW¼ SW¼ 18-24-16W	3,823	4,377	4,629	4,640
Natural Gas & Oil Corp. No. 1 White	NE¼ NE¼ NW¼ 26-24-18W	3,933	4,599	4,881	4,886
*Thompson et al No. 1 Copp	NW¼ SE¼ NW¼ 27-24-19W	3,996	.....	.....	4,560
Natural Gas & Oil Corp. No. 1 Johnston	NE¼ NW¼ SE¼ 18-25-16W	3,842	4,459	4,692	4,760

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

All but one of the dry wildcat tests were carried into the Arbuckle rocks, and a considerable number of drill-stem tests were taken during the drilling. The locations of the producing areas and dry wildcat tests are shown on Figure 11. Important marker horizons encountered during the drilling of the dry wildcats are given in Table 24. Oil production is listed in Table 56 and gas production in Table 57. The new pools are listed in Table 6.

ELK COUNTY

(Map Pl. 1)

The 1953 production from 23 fields: oil 170,818 barrels, gas 323,433 thousand cubic feet. Wells drilled in 1953 (reported): dry 4 including 1 wildcat. Estimated total 25.

Developments during 1953.—Oil production in Elk County was slightly less than in 1952.

One dry hole was reported in each of the **Dory, Fleming,** and **Hannah North** (Butler County) fields. However, it is estimated that 25 or more wells were drilled in the county.

A wildcat Arbuckle test was abandoned in Elk County in November 1953. It is the Musgrove Petroleum Corporation No. 1 Palmer well, NE¼ SW¼ NW¼ sec. 25, T. 28 S., R. 8 E. The total depth is 2,985 feet. The following tops were reported: Kansas City, 1,784; "Cherokee," 2,366; Mississippian, 2,628; Kinderhookian, 2,930; and Arbuckle, 2,973 feet.

Oil production in Elk County fields is listed in Table 56, and gas in Table 57. Water-flooding data are listed in Table 1. Locations of areas that produced oil in 1953 and the location of the secondary recovery project are shown on Plate 1.

ELLIS COUNTY

(Map Fig. 8)

The 1953 production from 89 pools: oil 11,164,383 barrels. Wells drilled during 1953: oil 183, dry 201, salt-water disposal 6, total 390 including 35 dry wildcats. New pools discovered 17, revived 1. Pools combined 2, abandoned 3.

Developments in 1953. — Oil production in Ellis County amounted to about 100,000 barrels more than the 1952 figure, and the county maintained its position as the third largest oil-produc-

ing county in the State. No commercial quantities of gas were reported. During 1953, 72 more wells were drilled than in 1952.

Resulting from exploration in the county, 17 new pools were discovered. They are: **Braun, Cochran, Degenhart, Dinkel, Dreiling Southeast, Ellis Northeast, Erbert, Holy Cross, Kraus North, Leiker East, Leiker Northwest, Reichert, Schmeidler Northwest, Turkville, Victoria North, Wheatland Northwest,** and **Wheatland Southwest.** The **Irvin South** pool was revived by the Lewis Drilling Company with a successful Arbuckle well in sec. 8, T. 14 S., R. 19 W., one section east of the original discovery well, which was abandoned in 1951, the same year as discovered. Of the 17 new oil pools, 10 produce from the Arbuckle dolomite, 6 from the Lansing-Kansas City, and 1 from the Pennsylvanian basal conglomerate, which is about the same order of importance of the older fields of the county.

During the year, the **Sugarloaf East** pool was combined with the **Sugarloaf,** and the **Leiker Northwest** with the **Leiker** pool. Three pools which have had no production for the past few years were abandoned during 1953. They are the **Dechant, Haller,** and **Pleasant North** pools.

New pay zones were added during the year in 13 of the county's older pools. Pertinent data concerning these new reserves are given in Table 7.

The number of completions in several of the county's pools during the year was high. Among these are 25 oil and 10 dry in the **Solomon** pool, 13 oil and 13 dry in the **Bemis-Shutts** pool, 9 oil and 5 dry in the **Rome** pool, and 7 oil and 5 dry in the **Dreiling Southeast** pool.

Dry holes drilled more than 1½ miles from production are classified by the State Geological Survey as wildcats. Of the 35 dry wildcats drilled in Ellis County during 1953, 11 had shows of oil, and the J. Stewart Bailey test on the Weber farm in sec. 28, T. 14 S., R. 19 W. reported a good show of oil but on further testing ran into too much water for commercial production. Pertinent information about these dry wildcat tests is given in Table 25.

Data on the newly discovered Ellis County oil pools are given in Table 6. Locations of producing areas and dry wildcat tests are shown on Figure 8. Oil production by pools is given in Table 56.

TABLE 25.—*Dry wildcat tests drilled in Ellis County during 1953*

Company and farm	Location	Depth to top of Lans.-K.C., feet	Depth to top of Arbuckle, feet	Total depth, feet
Heathman & Co., Inc. No. 1 Chrisler	NW¼ NW¼ NW¼ 33-11-16W	3,047	3,423	3,433
United Drlg., Inc. No. 1 Homburg	NE¼ NE¼ SE¼ 28-11-20W	3,533	4,010	4,018
C-G Drlg. Co. No. 1 Waldschmidt	NE¼ NE¼ NE¼ 35-11-20W	3,402	3,787	3,799
*Jones, Shelburne & Farmer, Inc. No. 1 Schmidt	SE¼ SE¼ NE¼ 23-12-17W	3,380	3,691	3,740
*Murfin Drlg. Co. No. 1 Kreutzer	SE¼ SW¼ NW¼ 5-12-18W	3,343	3,661	3,695
The El Dorado Refg. Co. No. 1 Pfeifer	NW¼ NW¼ SE¼ 21-12-19W	3,486	3,840	3,865
*Murfin Drlg. Co. No. 1 Bahl	NW¼ NW¼ SE¼ 32-12-19W	3,460	3,838	3,877
Petroleum, Inc. No. 1 Rand	NW¼ NW¼ NW¼ 22-12-20W	3,604	3,999	4,030
Petroleum, Inc. No. 1 Erbert	NW¼ NW¼ NE¼ 28-12-20W	3,513	3,866	3,940
The Texas Co. No. 1 J. M. Dortland	NE¼ SW¼ SE¼ 14-13-16W	3,163	3,461	3,512
The El Dorado Refg. Co., et al. No. 1 Scheck	NW¼ NW¼ SW¼ 16-13-16W	3,246	3,585	3,596
B & R Drlg., Inc. No. 1 K. Krause	NE¼ NE¼ NE¼ 29-13-18W	3,406	3,706	3,780
Mallonee Drlg. Co., et al. No. 1 Bemis	SW¼ SW¼ NW¼ 20-13-19W	3,417	3,779	3,810
Natl. Coop. Ref. Assn. No. 1 Flax	NW¼ NW¼ SE¼ 1-13-20W	3,484	3,893	3,921
*Braden Drlg. Co. No. 1 Gerken	SW¼ SW¼ SW¼ 13-13-20W	3,509	.....	3,900
Transit Corp. et al. No. 1 Norcross	SE¼ SE¼ NW¼ 23-13-20W	3,516	3,895	3,906
Graham-Messman-Rinehart Oil Co. No. 1 Boos	SW¼ SW¼ SE¼ 31-13-20W	3,528	3,899	3,920
*D. G. Hansen No. 1 Wellbrock	SW¼ SW¼ SW¼ 31-14-16W	3,216	3,478	3,528
*United Drlg., Inc. No. 1 "A" Brungardt	SE¼ SE¼ SW¼ 13-14-17W	3,246	3,519	3,556
Great Lakes Carbon Corp. No. 1 J. C. Gerstner	NW¼ NW¼ SW¼ 24-14-17W	3,212	3,460	3,500
*Pickrell Drlg. Co. No. 1 L. F. Brungardt	NE¼ SW¼ NE¼ 26-14-17W	3,221	3,543	3,570
*Murfin Drlg. Co., et al. No. 1 Leiker	NW¼ NW¼ SW¼ 25-14-18W	3,298	3,534	3,635
Shelley-Miller Drlg., Inc., No. 1 Engel	SW¼ SW¼ NW¼ 34-14-18W	3,327	3,646	3,676

*J. Stewart Bailey No. 1 Weber	SW¼ SW¼ SW¼ 28-14-19W	3,416	3,734	3,744
Musgrove Petro. Corp. No. 1 Schumacher	SW¼ SW¼ NE¼ 18-14-20W	3,460	3,848	3,870
Rocket Drlg. Co. No. 1 Seibel	NE¼ SE¼ NE¼ 21-14-20W	3,536	3,879	3,902
United Drlg., Inc. No. 1 Befort	NW¼ NW¼ SW¼ 23-14-20W	3,416	3,767	3,798
Lewis Drlg. Co. No. 1 Moore	NW¼ NW¼ SW¼ 24-14-20W	3,377	3,714	3,764
Helmerich & Payne, Inc. No. 1 Penney	NW¼ NW¼ SW¼ 17-15-16W	3,249	3,540	3,557
*John Lindas Oil, Inc. No. 1 Philip Ranch	SW¼ SW¼ NW¼ 4-15-17W	3,224	3,499	3,550
*Amerada Petro. Corp. No. 1 W. D. Phillips	SE¼ SW¼ NE¼ 11-15-17W	3,202	3,492	3,506
Musgrove Petro. Corp. No. 1 Hauschild	NE¼ NE¼ SW¼ 16-15-19W	3,311	.....	3,639
Musgrove Petro. Corp. No. 2 Hauschild	NW¼ NW¼ SW¼ 16-15-19W	3,298	.....	3,645
Jones, Shelburne & Farmer, Inc. No. 1 Foster	SE¼ SE¼ SW¼ 7-15-20W	3,473	3,910	3,943
Schafer Drlg. Co. No. 1 Elmore	NE¼ NE¼ NE¼ 35-15-20W	3,486	.....	3,872

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

ELLSWORTH COUNTY

(Map Fig. 7)

The 1953 production from 15 pools: oil 3,539,273 barrels, gas 17,312 thousand cubic feet. Wells drilled in 1953: oil 29, gas none, dry 23, salt-water disposal 2, total 54 including 8 wildcats. New pools discovered 1, combined 1.

Developments during 1953.—Oil production from Ellsworth County declined about 8 percent from the 1952 figure, while gas production decreased appreciably. Only one new pool was discovered in the county during the year, the **Lorraine North.** The pool was opened by Petroleum, Incorporated, on the Janzen property in sec. 12, T. 17 S., R. 9 W., when commercial quantities of oil were found in the Lansing-Kansas City rocks from 3,066 to 3,071 feet depth. After initial swabbing tests, the hole was carried into the Arbuckle before being plugged back to the pay zone and given an initial potential of 50 barrels of oil per day.

Three extension oil wells were added to the Ellsworth County part of the **Geneseo-Edwards** field. It was decided during the year that the **Edwards** pool of Ellsworth County and the **Geneseo** field

TABLE 26.—*Dry wildcat tests drilled in Ellsworth County during 1953*

Company and farm	Location	Depth to top of Lans.-K.C., feet	Depth to top of Penn. Basal cong., feet	Depth to top of Arbuckle, feet	Total depth, feet
The Texas Co. No. 1 Frank Hochman	SW¼ NW¼ SE¼ 31-14-9W	2,716	3,065	3,116	3,584
*The El Dorado Refg. Co. et al. No. 1 Hanley	SW¼ SW¼ SE¼ 20-16-8W	2,788	3,179	3,439	3,460
*Salina Drlg. Corp., Inc. No. 1 Larson Est.	SW¼ SW¼ SW¼ 12-17-6W	2,546	3,091	3,564	3,599
*Tran-Era Petro., Inc. et al. No. 1 Peterson	NW¼ NW¼ NW¼ 36-17-6W	2,722	3,220	.....	3,471
*John J. Darrah et al. No. 1 Tyner	SE¼ SE¼ NW¼ 6-17-7W	2,728	3,134	3,550	3,525
*M & L Oil Co. No. 1 Fuller	SE¼ SE¼ SW¼ 29-17-7W	2,800	3,226	3,469	3,487
*Natural Gas & Oil Corp. No. 1 Behnke	NW¼ NW¼ SW¼ 36-17-7W	2,875	3,319	.....	3,425
*Musgrove Petro. Corp. No. 1 Splitter	NE¼ NE¼ NW¼ 21-17-9W	2,889	3,240	3,305	3,310

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

of Rice County had a common reservoir; therefore the two were combined.

Routine drilling in other Ellsworth County pools resulted in the addition of 4 extension oil wells to the **Andrews** pool, 6 to the **Lorraine,** and 12 to the **Heiken.** The Pennsylvanian basal conglomerate was named as a new producing zone in the **Heiken** pool, and 9 of the 12 new oil wells were from this zone.

Only three of the dry wildcat tests in the county had shows of oil or gas. Pertinent data concerning these tests are given in Table 26. The county's new producing pool is described in Table 6 and the new producing zone in Table 7. Locations of producing areas and dry wildcat tests are shown on Figure 7. Data on oil production are given in Table 56 and gas production in Table 57.

FINNEY COUNTY

(Map Pl. 2)

The 1953 production: oil from 9 pools 229,730 barrels; gas (all from Hugoton Gas Area) 30,784,079 thousand cubic feet. Wells drilled during 1953: oil 6, gas 73, dry 8, total 87 including 4 dry wildcats. New pools discovered 3.

Developments during 1953.—Oil production from Finney County's relatively new pools showed a 16 percent increase over

the 1952 production; 29 more wells were drilled for oil and gas in the county than in 1952.

The three new oil pools are the **Damme Northeast, Finnup,** and **Finnup East.** The **Damme Northeast,** a Mississippian pool, was discovered on the Graves farm in sec. 16, T. 22 S., R. 33 W. by the D. R. Lauck Oil Company, Inc. Initial production of 147 barrels of oil per day was assigned the zone from 4,639 to 4,649 feet depth. W. L. Hartman found the **Finnup** Mississippian pool on the Finnup property in sec. 34, T. 22 S., R. 33 W. An initial potential of 434 barrels of oil per day was given the zone from 4,756 to 4,762 feet depth. In sec. 25, W. L. Hartman found Marmaton production from 4,442 to 4,458 feet depth on the Holsted-Thomason property, which resulted in the third new pool for the county, the **Finnup East.** Initial potential was reported as 232 barrels of oil per day.

For the first time the State Geological Survey has been able to divide into county units the gas production from the **Hugoton Gas Area.** The gas production for 1953 from 306 Finney County gas wells in the huge gas area totaled 30,784,079 thousand cubic feet. Cumulative production from this portion of the field is more than 151,748 million cubic feet.

During 1953, 73 new gas wells were added to the field, including the Chase group production in the Cooperative Refinery Association No. 2 Sonderegger well in sec. 21, T. 22 S., R. 31 W. The **Sonderegger** Mississippian oil pool is located about 8 miles east of the present concentration of Hugoton producing wells in T. 22 S. Open-flow potential of the test was reported as 7 million cubic feet of gas per day.

TABLE 27.—*Dry wildcat tests drilled in Finney County during 1953*

Company and farm	Location	Surface elevation, feet	Depth to top of Lans.-K.C., feet	Depth to top of Mississippian, feet	Total depth, feet
Salina Drlg. Corp., Inc. No. 1 Gano	NW¼ NW¼ SW¼ 24-21-33W	2,893	3,920	4,770	5,000
*Trans-Era Petro., Inc. No. 1 Doyle	NE¼ NE¼ SW¼ 27-22-30W	2,814	3,999	4,674	4,856
Trans-Era Petro., Inc. No. 1 Rodgers	SE¼ SE¼ SE¼ 7-22-33W	2,899	3,852	4,711	4,860
M & L Oil Co. No. 1 Trekell	NW¼ NW¼ NW¼ 6-23-31W	2,921	4,028	4,843	5,018

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

All four wildcat tests drilled in Finney County penetrated Mississippian rocks. Pertinent data on these dry wildcat tests are given in Table 27. Finney County wells are located on Plate 2. Information on the new producing pools is given in Table 6. Oil production by pools is given in Table 56 and gas production in Table 57. Historical information on the Hugoton Gas Area is found in the chapter on natural gas.

FORD COUNTY

The 1953 production from 2 pools: oil 3,531 barrels, gas 10,861 thousand cubic feet. Wells drilled during 1953: gas 1, dry 3, total 4 including 3 dry wildcats. New pools discovered 1 (gas).

Developments during 1953.—Early in 1953, a successful gas well was completed by M. B. Armer on the Helmers farm in sec. 25, T. 28 S., R. 21 W. The initial potential was reported as more than 5 million cubic feet of gas per day from the upper Mississippian rocks at a depth of 5,024 to 5,040 feet; however, the gas production reported from the county during 1953 was reported as miscellaneous and it is not known if the **Helmers** pool is now producing. No new drilling took place in the vicinity of the well during 1953.

All three dry wildcat tests drilled in the county during the year penetrated the Mississippian rocks. The Northern Natural Gas Company No. 1 Bierwagon dry test was drilled in the Cen. SE¼ NW¼ sec. 10, T. 26 S., R. 21 W., to a total depth of 4,915 feet. Drilling from an elevation of 2,289 feet above sea level the following tops were encountered: Stone Corral, 1,342; Lansing, 4,157; and Mississippian, 4,800 feet depth.

Drilling from an elevation above sea level of 2,428 feet, M. B. Armer penetrated the Mississippian in his dry test on the Ralstin farm in the NW¼ NW¼ NW¼ sec. 24, T. 29 S., R. 21 W. The Lansing was penetrated at 4,514 and the Mississippian at 5,212 feet depth; total depth was reported as 5,269 feet.

The deep test on the Lane Estate by the Continental Company in the NE¼ NE¼ NW¼ sec. 28, T. 29 S., R. 21 W. penetrated the Arbuckle dolomite at 6,100 feet depth. Other tops reported from an elevation of 2,456 feet above sea level were: Lansing, 4,562; Mississippian, 5,266; Viola dolomite, 5,862; Simpson shale, 6,046; and total depth 6,203 feet.

Data on oil production are given in Table 56 and gas production in Table 57. The new pool is listed in Table 6.

FRANKLIN COUNTY

(Map Pl. 1)

The 1953 production from 7 areas in 1 field: oil 481,442 barrels including approximately 301,691 barrels from secondary recovery projects. Wells drilled in 1953 (reported): oil 16, input 7, total 23. Estimated total 100.

Developments during 1953.—Oil production in Franklin County continued to increase as it has for several years. Most of the drilling was done in connection with water-flooding activities in the eastern part of the county in the **Paola-Rantoul** field.

Data on water-flooding projects in Franklin County are listed in Table 1. Oil production in the various areas is listed in Table 56. Locations of areas that produced oil in 1953 and of water-flood projects are shown on Plate 1.

GEARY COUNTY

(Map Pl. 1)

Wildcat wells have been drilled in Geary County from time to time but no producing pool has been found. According to Geological Survey records 18 tests had been drilled in the county previous to 1953. One test was drilled in 1953.

Exploration during 1953.—The Continental Oil Co. No. 1 A. R. Germann well, in the SE¼ SE¼ NW¼ sec. 20, T. 13 S., R. 8 E., was drilled to a total depth of 2,958 feet in March 1953. Tops reported are: Heebner shale, 1,420; Lansing, 1,529; Kansas City, 1,620; Mississippian, 2,063; Kinderhookian, 2,189; "Hunton," 2,402; Maquoketa, 2,624; Viola, 2,707; Simpson, 2,815; and Arbuckle, 2,906 feet. The location of this dry wildcat test is shown on Plate 1.

GOVE COUNTY

(Map Fig. 10)

The 1953 production from 7 pools: oil 35,119 barrels. Wells drilled during 1953: oil 3, dry 4, total 7 including 2 dry wildcats.

Developments during 1953.—Although only one-third as many tests were attempted in Gove County during 1953 as in 1952, the

county's oil production rose more than one-third for the year. The three new oil wells reported were all in the **Lundgren South** Mississippian pool. Wycoff and Williams reworked the No. 1 Mortimer O'Conner well in sec. 31, T. 14 S., R. 29 W., for Mississippian production in the **Lundgren South** pool, also.

The two rank wildcats drilled during the year penetrated the Mississippian rocks; both were drilled by Wycoff Drilling Company. The test on the Dair property in the NW¼ NW¼ NW¼ sec. 35, T. 12 S., R. 30 W. was drilled from an elevation of 2,735 feet above sea level to a total depth of 4,484 feet. The Stone Corral was topped at 2,190, the Lansing-Kansas City at 3,793, and the Mississippian at 4,396 feet depth.

The second test was drilled in the SE¼ SE¼ NE¼ sec. 13, T. 13 S., R. 29 W. on the Priefert farm to a total depth of 4,615 feet. Drilling from an elevation of 2,764 feet above sea level, the Stone Corral was encountered at 2,254, the Lansing-Kansas City at 3,935, and Mississippian strata at 4,513 feet depth.

The locations of the oil pools and dry wildcat tests are shown on Figure 10. Oil production by pools is given in Table 56.

GRAHAM COUNTY

(Map Fig. 5)

The 1953 production from 37 pools: oil 3,367,291 barrels, gas none reported. Wells drilled during 1953: oil 60, dry 54, salt-water disposal 8, total 122 including 10 dry wildcats. New pools discovered 7; pools combined 3.

Developments during 1953.—Although oil production dropped off about 13 percent from the 1952 figure and the number of wells drilled decreased by 45, 7 new pools were named in Graham County during the year, and 60 oil-well completions were reported.

Wildcat exploration resulted in the discovery of seven pools: **Cooper North, Diebolt, Montgomery, Morel Northwest, Nana, Noah East,** and **White Southwest.** Four of the new pools had the Arbuckle designated as the producing zone and the other three, the Lansing-Kansas City. Although the discovery well of the **Montgomery** pool was carried as dry and abandoned by the scout reports, some production was reported from the lease.

The Lansing-Kansas City was named as a new producing zone in the old **Mickleson** field when an initial potential of 234 barrels of oil per day was assigned the zone from 3,502 to 3,511 feet depth.

During the year, the **Alda West** pool was combined with the **Alda,** the **Schmied North** with the **Schmied,** and the **Smith-Denning West** with the **Smith-Denning.** Drilling near known production resulted in the addition of 12 oil wells and 9 dry holes in the **Cooper** pool, 8 oil wells and 3 dry holes in the new **White Southwest** pool, 5 oil wells and 1 dry hole in the **Morel** pool, and 5 oil wells and 2 dry holes in the **Harmony** pool.

Information regarding the older rocks in Graham County was furnished by the two salt-water disposal wells completed during the year. Jones, Shelburne and Farmer in their No. 5 Miller well in sec. 11, T. 10 S., R. 21 W. found the top of the Arbuckle dolomite at 3,861 feet and the base at 4,219 feet depth. This means that the Arbuckle is 358 feet thick in the southeastern township of the county. Granite was found beneath the dolomite. In the next township farther north, the Cities Service Oil Company salt-

TABLE 28.—*Dry wildcat tests drilled in Graham County during 1953*

Company and farm	Location	Surface elevation, feet	Depth to top of Lans.-K.C., feet	Depth to top of Arbuckle, feet	Total depth, feet
Herndon Drlg. Co. No. 1 Kenyon	NW¼ NW¼ NW¼ 15-7-21W	2,142	3,394	3,656	3,706
*Hall-Jones Oil Corp. et al. No. 1 Fox Estate	SW¼ SW¼ SE¼ 30-7-24W	2,438	3,739	4,329	4,360
*Peel-Hardman Oil Producers, No. 1 Emery	NE¼ NE¼ SW¼ 29-8-21W	2,160	3,395	3,740	3,765
*Jones, Shelburne & Farmer, Inc. No. 1 Holland	SE¼ SE¼ NW¼ 25-8-22W	2,127	3,375	3,705	3,740
*Hall-Jones Oil Corp. et al. No. 1 Flag Goddard	NW¼ NW¼ SE¼ 7-8-24W	2,365	3,708	.....	4,247
*Brooks-Hall No. 1 Thompson	SW¼ SE¼ NE¼ 2-9-22W	2,241	3,486	.....	3,841
Anschutz Drlg. Co. No. 1 Bollig	SW¼ SW¼ SW¼ 28-9-25W	2,554	3,801	.....	4,450
*Rocket Drlg. Co. No. 1 Noah	SW¼ SE¼ SW¼ 16-10-21W	2,218	3,492	3,824	3,850
Sam Smith et al. No. 1 Faulkner	SW¼ SW¼ NW¼ 23-10-22W	2,242	3,516	3,929	3,989
*Jones, Shelburne & Farmer, Inc. No. 1 Wehby	NW¼ NW¼ SE¼ 26-10-23W	2,318	3,587	4,062	4,092

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

water disposal well on the No. 9 Morel "B" lease in sec. 22, T. 9 S., R. 21 W. found the Arbuckle dolomite at 3,709. The base of the Arbuckle was found at 4,145 feet, indicating a thickness of more than 435 feet in the **Morel** pool area.

The number of rank wildcats drilled in the county during 1953 decreased to 10 from a previous high of 40 in 1952. Only two of these dry wildcat tests reported shows of any kind. Pertinent data concerning the depths at which the marker horizons were encountered are given in Table 28.

The new pools are described in Table 6; the new producing zone in the established **Mickleson** pool is listed in Table 7. The producing pools and dry wildcat tests are shown on Figure 5. Oil production is given in Table 56.

GRANT COUNTY

(Map Pl. 2)

The 1953 production from the Grant County portion of the Hugoton Gas Area: gas 84,403,364 thousand cubic feet. Wells drilled during 1953: total 6 (all gas).

Developments during 1953.—Practically all the drilling sites, based on the present arrangement of one well per section, have been occupied in Grant County; therefore, the small number of new completions is not surprising. During 1953, the 560 Hugoton gas wells in the county produced 84,403,364 thousand cubic feet of gas. This brings the cumulative production of the county, producing since 1930, to more than 537,002 million cubic feet of gas.

Two of the new gas wells have rather large production potentials. The Hugoton Production Company No. 1 Stubbs well in sec. 34, T. 28 S., R. 37 W., has a capacity of more than 19 million cubic feet of gas per day. The same company's new well on the Powell ranch in sec. 31, T. 29 S., R. 37 W. was given a rating of almost 25 million cubic feet per day.

The Stanolind Oil and Gas Company drilled five additional natural gasoline and LPG storage wells in sec. 5, T. 29 S., R. 38 W., during the year. The average total depths of the salt-cavity storage wells is 1,730 feet.

The Grant County gas wells and dry holes drilled through the years are plotted on Plate 2. The Grant County portion of the Hugoton Gas Area production is listed in Table 57. Early history

of the Hugoton Gas Area is discussed in the chapter on natural gas.

GRAY COUNTY

The 1953 production from Gray County's first oil pool: none reported. Wells drilled during 1953: oil 1, dry 3, total 4 including 3 dry wildcats. New pools discovered 1.

Developments during 1953.—During 1953, the Nomenclature Committee named the **Jumbo** pool as Gray County's first oil pool. The United Producing Company's No. 1 Salmon well in the Cen. SE¼ NW¼ sec. 29, T. 29 S., R. 27 W. was assigned an initial potential of 15 barrels of oil per day from the "Cherokee group" at depths of 5,103 to 5,111 feet. The hole was taken to the Arbuckle, which was topped at 6,383 feet depth, before being plugged back to the show in the "Cherokee" rocks. Later in the year the well was reworked and declared dry and abandoned.

Three dry wildcat tests were drilled during 1953, two of them close to the **Jumbo** pool discovery well. United Producing Company drilled a test on the Oliva Knoeber property in the Cen. SW¼ NE¼ sec. 19, T. 29 S., R. 27 W. to a total depth of 5,460 feet. Drilling from an elevation of 2,668 feet above sea level, the following tops were reported: Heebner shale, 4,248; Lansing-Kansas City, 4,315; and Mississippian, 5,160. The W. J. Coppinger test on the Lasater farm in the Cen. SE¼ NW¼ sec. 33, T. 29 S., R. 27 W. was drilled to a total depth of 5,454 feet. Important marker horizons encountered, drilling from an elevation of 2,607 feet above sea level, were: Heebner, 4,213; Lansing-Kansas City, 4,291; and Mississippian, 5,140 feet depth.

The third dry wildcat test was drilled by Deep Rock Oil Corporation in the northern part of the county on the M. Schartz lease in the Cen. NW¼ NE¼ sec. 33, T. 24 S., R 28 W. to a total depth of 5, 148 feet. From an elevation of 2,752 feet above sea level the following tops were reported: Lansing-Kansas City, 4,174; and Mississippian strata, 4, 847 feet depth.

Data on the new pool are given in Table 6 and Table 56.

GREENWOOD COUNTY

(Map Pl. 1)

The 1953 production from 55 fields: oil 5,638.077 barrels including approximately 4,423,653 barrels from 50 water-flood operations. Wells

drilled in 1953: oil 96, dry 61, input 85, water-supply 6, total 248 including 5 dry wildcats. Pools discovered 2.

Developments during 1953.—Oil Production in Greenwood County was more than 1 million barrels less than in 1952. However, the county retained top place in the number of secondary recovery projects operating and in amount of oil produced by water-flooding methods.

One "Bartlesville sand" pool and one Mississippian limestone pool were found in Greenwood County. The **Verdigris** pool was discovered by the Susmio Oil Co. No. 1 Jones well late in 1952, in the NE¼ NE¼ NE¼ sec. 2, T. 24 S., R. 12 E. The Mississippian reservoir is between depths of 1, 784 and 1, 786 feet. Two dry holes were drilled in the field during the year. The Ward A. McGinnis No. 2 Zimmermann well, Cen. NW¼ sec. 19, T. 23 S., R. 10 E., opened the **Zimmermann** field. The "Bartlesville" pool was found at 2,296 feet. The discovery well was rated at 25 barrels of oil per day. One dry hole was drilled in the field during the year.

Data on the five dry wildcat tests drilled in Greenwood County in 1953 are listed in Table 29.

The greatest drilling activity reported in the county was in the **Thrall-Aagard** field where 27 oil wells were completed. Five oil wells and 31 water input wells were reported in the **Seeley-Wick** field.

Oil production in the various Greenwood County fields is listed in Table 56. Data on secondary recovery operations are listed in Table 1. Plate 1 shows locations of areas in Greenwood County

TABLE 29.—*Dry wildcat tests drilled in Greenwood County during 1953*

Company and farm	Location	Depth to top of "Bartlesville", feet	Depth to top of Mississippian, feet	Total depth, feet
Kansas Oil Co., Inc. No. 1 Morgan	NE¼ NE¼ NE¼ 12-26-8E	2,414	2,511	2,540
Smith, Sargent, & Conkey No. 1 Johnson	NE¼ SW¼ SW¼ 33-26-9E	2,278	2,473	2,543
C. E. Ash No. 1 Lane	SE¼ SE¼ SE¼ 5-26-12E	.....	1,739	1,793
Houston Investment Co., Inc. No. 1 Ross	SW¼ SE¼ SW¼ 11-27-12E	770°	1,734	2,020
Shamrock Drlg. Co. of Kansas No. 1 Brunch	SE¼ SE¼ SE¼ 8-28-12E	.....	1,698	1,768

* 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 Kansas City, feet.

that produced oil in 1953 and of secondary recovery projects. The new pools are described in Table 6.

HAMILTON COUNTY

(Map Pl. 2)

The 1953 production from Hamilton County portion of the Hugoton Gas Area: gas 5,367,827 thousand cubic feet. Wells drilled during 1953: gas 10, dry 3, total 13 including 1 dry wildcat.

Developments during 1953.—Ten new **Hugoton** gas wells were completed in Hamilton County during 1953. The 25 producing gas wells in the county produced five-eighths of the total gas production credited to the county since gas was first discovered there in 1946.

Nine of the new gas wells were completed by the Stanolind Oil and Gas Company in their block of acreage in T. 26 S., R. 39 W. Initial potentials on these new wells ranged from 4 to 12 million cubic feet of gas per day.

The J. S. Woodward Drilling Company drilled the dry wildcat test on the O. P. Buck property in the SE¼ SE¼ NW¼ sec. 15, T. 23 S., R. 39 W., into the Mississippian rocks; total depth was 5,333 feet. Drilling from an elevation of 3,375 feet above sea level the following tops were reported: Dakota sandstone, 440; Day Creek dolomite, 1,070; Winfield limestone, 2,630; lower Fort Riley limestone, 2,750; Lansing limestone, 3,950; "Cherokee," 4,560; Atokan-Morrowan, 4,730; and Mississippian, 5,225 feet depth.

W. J. Coppinger drilled a dry hole on the Kritzmire property in the NW¼ NW¼ SE¼ sec. 24, T. 26 S., R. 40 W., close to previously designated Hugoton production. The test was drilled into the Mississippian, the top of which was reported at 5,498 feet depth. The elevation of the test was given as 3,354 feet above sea level; total depth was 5,800 feet.

The new Hamilton County gas wells and dry holes are shown on Plate 2. Production, the active area, and producing zones are given in Table 57. Historical data on the Hugoton area are given in the chapter on natural gas.

HARPER COUNTY

The 1953 production from 4 pools: oil 21,899 barrels, gas 106,507 thousand cubic feet. Wells drilled during 1953: oil 2, gas 1, dry 7, total 10 including 6 dry wildcats. New pools discovered 1.

Developments during 1953.—Oil production increased about 6,000 barrels during 1953; the number of tests increased by 3.

One of the wildcat tests drilled in Harper County during 1953 was successful in finding a new gas pool, the **Runnymede.** This well was The Texas Company No. 1 Springer in sec. 23, T. 31 S., R. 6 W. Gas rated at 3,800,000 cubic feet per day occurs in Simpson sandstone. Before completion as a gas producer, the test had been drilled 38 feet into the Arbuckle dolomite. It was found to be porous but yielded only salt water.

The two new oil wells were drilled by Beardmore in the **Grabs** pool, where the oil comes from a porous zone at the top of the Mississippian rocks.

The dry wildcat tests are listed in Table 30 together with significant data. In the Superior Oil Company No. 1 Palmer test in sec. 15, T. 32 S., R. 6 W. some gas shows were found in Mississippian rocks and also in Simpson sandstones. The Morrison Drilling Company No. 1 Sanders well in sec. 14, T. 32 S., R. 7 W. also found a gas show in the Mississippian.

Oil production is listed in Table 56 and gas production in Table 57. The new pool is described in Table 6.

TABLE 30.—*Dry wildcat tests drilled in Harper County during 1953*

Company and farm	Location	Surface elevation, feet	Depth to top of K.C., feet	Depth to top of Arbuckle, feet	Total depth, feet
Sohio Petro. Co. No. 1 H. Weede	SE¼ NE¼ NW¼ 3-32-5W	1,294	3,532	4,759	4,825
Beardmore Drlg. Co. et al. No. 1 Oliver	NE¼ NE¼ NW¼ 2-32-6W	1,384	3,650	4,829	4,885
The Superior Oil Co. No. 1 Ferdi Palmer	NW¼ NW¼ NW¼ 15-32-6W	1,306	3,719	4,863	4,922
*Morrison Drlg. Co., Inc. No. 1 Sanders	SE¼ SE¼ NW¼ 14-32-7W	1,419	3,808	4,756†	4,768
Beardmore Drlg. Co. No. 1 Allen	SE¼ SW¼ SE¼ 22-32-9W	1,471	3,968	4,987	5,034
The Texas Co. No. 1 Bird	NW¼ NW¼ SE¼ 21-34-5W	1,221	3,843	4,584**	4,596

* 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 Simpson, fect.
** Depth to the top of the Mississippian, feet.

HARVEY COUNTY

(Map Fig. 7)

The 1953 production from 8 pools: oil 155,787 barrels; gas 432,415 thousand cubic feet. Wells drilled during 1953: oil 3, gas 2, dry 12, total 17 including 7 dry wildcats.

Developments during 1953.—Drilling activity in Harvey County showed an increase of six tests during 1953, although oil production decreased modestly and gas production dropped noticeably.

Two extension wells were added to the Harvey County part of the **Burrton** pool, and one to the **Hollow-Nikkel** pool. The two new gas wells were added to the **Burrton Northeast** pool. Of the seven dry wildcat tests drilled during the year, only the Graham-Messman-Rinehart Oil Company No. 1 Baird, in sec. 34, T. 24 S., R. 3 W. had shows of oil or gas. Six of the seven tests were located in the east ranges of the county, and only two penetrated the Arbuckle dolomite. Pertinent data concerning the dry wildcat tests are given in Table 31.

Figure 7 shows the producing areas and locations of the dry wildcat tests. Oil production data are listed in Table 56 and gas production in Table 57.

TABLE 31.—*Dry wildcat tests drilled in Harvey County during 1953*

Company and farm	Location	Surface elevation, feet	Depth to top of Lans.-K.C., feet	Depth to top of Arbuckle, feet	Total depth, feet
*Graham-Messman-Rinehart Oil Co. No. 1 Baird	SW¼ SW¼ SW¼ 34-24-3W	1,430	2,608	3,884††	4,036
G. L. Reasor No. 1 Hudson	SE¼ SW¼ NE¼ 33-22-1E	1,470	2,315	3,595	3,606
*Westgate-Greenland Oil Co. No. 1 Ullum	NW¼ NW¼ NW¼ 10-22-2E	1,454	2,123	3,300	3,304
*J. P. Gaty, et al. No. 1 Vogt	SW¼ SE¼ NE¼ 24-23-2E	1,444	2,129	.....	2,814
*Trans-Era Petro., Inc. No. 1 Gronau	SW¼ SW¼ NW¼ 9-24-1E	1,451	2,355	3,629	3,655
*J. P. Gaty No. 1 Golden	NE¼ SE¼ SE¼ 28-24-2E	1,383	2,184	3,264††	3,270
*Walter Kuhn Drlg. Co. No. 1 A. B. Sanders	SW¼ SE¼ SW¼ 29-24-2E	1,391	2,130	3,297††	3,302

* 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 "Hunton," feet.

HASKELL COUNTY

(Map Pl. 2)

The 1953 production from the Haskell County portion of the Hugoton Gas Area, 31,315,837 thousand cubic feet. Wells drilled during 1953: gas 27, dry 2, total 29.

Developments during 1953.—Twenty-seven new Hugoton gas wells were added to the Haskell County portion of the **Hugoton Gas Area** during 1953. The 322 gas wells now producing accounted for a county total production of 31,315 million cubic feet of gas, bringing the cumulative production of the county, producing since 1931, to more than 192,850 million cubic feet of gas.

The 27 new gas wells had an average initial potential after acidization of about 3 million cubic feet of gas per day. The new well with the largest initial potential was the Stanolind Oil and Gas Company No. 1 Shaffer well in sec. 22, T. 30 S., R. 33 W. which was gauged at more than 17 million cubic feet of gas per day.

The J. M. Huber dry test to the **Hugoton** producing zone on the Currey farm in sec. 5, T. 28 S., R. 33 W., well within the defined geographical limits of the field, found the pay zone noncommerical. The other dry test to the **Hugoton** producing zone was drilled by Davis, Zoller and Kuhn on Beverlin land in sec. 29, T. 30 S., R. 31 W.

Haskell County wells and dry tests are shown on Plate 2. Production, the active area, and the producing group are given in Table 57. Historical data on the Hugoton Gas Area are given in the chapter on natural gas.

HODGEMAN COUNTY

(Map Fig. 12)

The 1953 production from 3 pools: oil 144,666 barrels. Wells drilled during 1953: oil 1, dry 6, total 7 including 4 dry wildcats. New pools discovered 1.

Developments during 1953.—Although drilling decreased during 1953, the oil production increased 8 percent over the previous year.

Among the wildcat tests drilled, one was successful in finding a new oil pool which has been named the **Saw Log Creek pool.** Atlantic Refining Company completed the first test well on the

TABLE 32.—*Dry wildcat tests drilled in Hodgeman County during 1953*

Company and farm	Location	Surface elevation, feet	Depth to top of Lans.-K.C., feet	Depth to top of Mississippian, feet	Total depth, feet
Imperial Drlg. Co., Inc. No. 1 Hendrickson	NW¼ SW¼ NE¼ 30-21-22W	2,295	3,903	4,503	4,605
*John Lindas Oil, Inc. No. 1 Folkerts	SE¼ NW¼ SE¼ 21-21-23W	2,378	3,936	4,562	4,600
Atlantic Refg. Co. No. 1 J. E. Mooney	C SW¼ SW¼ 20-22-21W	2,205	3,861	4,440	4,560
*I. W. Siegel No. 1 Smalley	SE¼ SE¼ NE¼ 9-23-24W	2,366	3,965	4,592	4,660

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

Hall farm in sec. 36, T. 23 S., R. 22 W. which found oil in a porous Marmaton limestone between the depths of 4,284 and 4,295 feet. The potential production of the discovery is 635 barrels of oil per day with 6 percent water. Before completion this test was drilled into the Arbuckle dolomite. Mississippian limestone was found at 4,509, Misener sandstone at 4,775, Viola dolomite at 4,805, Simpson shale at 4,907, and Arbuckle dolomite at 4,923 feet. The total depth is 4,982 feet. An offset test later in the year was dry.

The dry wildcat tests and tops to important marker horizons are listed in Table 32. The producing area and dry wildcat tests are shown on Figure 12. Oil production is given in Table 56, and the new pool is described in Table 6.

JACKSON COUNTY

(Map Pl. 1)

Test wells have been drilled in Jackson County from time to time but as yet no producing pool has been found.

Exploration during 1953.—The Lutz & Hembree No. 1 Blumberg well, Cen. NW¼ NW¼ sec. 6, T. 8 S., R. 16 E., was abandoned as a dry hole in May 1953. The total depth of the well is 3,244 feet. The top of the Mississippian limestone was logged at 2,247 feet; the Kinderhookian rocks at 2,413 feet; the "Hunton" limestone at 2,644 feet; the Viola limestone at 2,993 feet; the Simpson group at 3,126 feet; and the Arbuckle limestone at 3,214 feet depth.

The Geological Survey has records of 11 wells drilled in Jackson County previous to 1953. The dry wildcat test is shown on Plate 1.

JEFFERSON COUNTY

(Map Pl. 1)

The 1953 production: oil 277 barrels, gas 36,384 thousand cubic feet.

Developments during 1953.—The small amount of reported oil and gas production comes from the **McLouth** area generally. Drilling activities were confined to that area which was being conditioned for underground storage of natural gas.

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 1953.—During 1953, one exploratory test was reported in Jewell County. The test was drilled by the National Associated Petroleum Company on the Glen Roe farm in the NE¼ NE¼ NE¼ sec. 19, T. 1 S., R. 7 W., to a total depth of 4,120 feet. The driller's log reported an elevation of 1,706 feet above sea level, measured from the derrick floor. The bottom of the anhydrite was reported as 1,270, and the top of the "chat" as 3,349 feet depth. It was reported that an electric log was run on the test, but the Geological Survey has not received the log as yet.

JOHNSON COUNTY

(Map Pl. 1)

No production of oil was reported. No drilling reported.

Developments during 1953.—There was no official report of oil produced in Johnson County in 1953. A few gas wells, rather large for the area, which were drilled recently in the **Dallas field** in the northeastern part of the county were kept shut-in because of lack of market for the gas. Miscellaneous gas production was estimated at 25,728 thousand cubic feet. It is probable that a small amount of oil was marketed from one or more oil wells in the same area.

KEARNY COUNTY

(Map Pl. 2)

The 1953 production: oil from 1 pool 34,722 barrels, gas (all from the Hugoton Gas Area) 71,955,888 thousand cubic feet. Wells drilled during 1953: gas 72, dry 3, total 75 including 1 dry wildcat.

Developments during 1953.—Although no new wells were added to the **Patterson** oil pool, the production from Kearny County's only oil pool increased more than 22 percent over the previous year. Only three fewer new **Hugoton** gas wells were added to the Kearny County portion of the huge gas area.

Among the 72 new **Hugoton** gas wells, quite a few exceed 10 million cubic feet of gas per day in capacity; conversely, about a dozen gauged less than 1 million; average production is about 5.5 million cubic feet of gas per day. The largest new gas well was completed by the Stanolind Oil and Gas Company on the Thorpe lease in sec. 26, T. 23 S., R. 36 W.

There are now 478 producing gas wells in Kearny County. These wells produced almost 71,956 million cubic feet of gas during the year, bringing the cumulative total for the county to more than 346,563 million cubic feet of gas since its discovery there in 1937.

The dry wildcat test was drilled by Trans-Era Petroleum Company on the Miller farm in the NE¼ NE¼ NE¼ sec. 23, T. 22 S., R. 37 W., about 6 miles west of the gas production and an equal distance east from the **Patterson** pool. Drilling from an elevation of 3,264 feet above sea level, the reported tops were: Lansing, 3,937; and Mississippian rocks, 4,971 feet depth. The well had penetrated 219 feet of Mississippian strata at total depth of 5,180 feet.

The Kearny County wells are shown on Plate 2. Gas production and the active area are shown in Table 57, and oil production in Table 56. Historical data on the Hugoton Gas Area are given in the chapter on natural gas.

KINGMAN COUNTY

(Map Fig. 16)

The 1953 production from 14 pools: oil 616,669 barrels, gas 1,368,757 thousand cubic feet. Wells drilled during 1953: oil 18, gas none, dry 24, salt-water disposal 2, total 44, including 11 dry wildcats. New pools discovered 3. Secondary recovery projects 1.

Developments during 1953.—Twenty more tests were attempted in Kingman County than in the previous year. These resulted in the discovery of three new oil pools. Oil production decreased about 10 percent and gas production decreased modestly.

The three new oil pools are the **Basil, Orsemus,** and **Spivey South.** The **Basil** oil pool was discovered by W. J. Coppinger in his first test on the Brand farm in sec. 16, T. 29 S., R. 7 W., when he found commercial quantities of oil in the Viola dolomite from 4,511 to 4,514 feet depth. The initial potential of the discovery well was reported as 211 barrels of oil per day. Continued drilling in the pool resulted in three more wells being added during the year, and the Lansing-Kansas City being named a new producing zone.

The **Orsemus** pool is located on a trend southwest of the **Broadway** pool. Here the oil was found in two zones also. The discovery well of the pool drilled by The Texas Company on the Jake Graber farm in sec. 30, T. 29 S., R. 5 W. was given an initial potential of 1,901 barrels of oil per day from the Simpson rocks from 4,468 to 4,480 feet depth. An offset well on the Tanner property by the same company in the same section proved the Viola to be productive from 4,455 to 4,467 feet depth.

TABLE 33.—*Dry wildcat tests drilled in Kingman County during 1953*

Company and farm	Location	Surface elevation, feet	Depth to top of Lans.-K.C., feet	Depth to top of Arbuckle, feet	Total depth, feet
Trans-Era Petro., Inc. No. 1 Goering	NE¼ NE¼ NW¼ 1-27-6W	1,556	3,043	4,308	4,375
Cities Service Oil Co. No. 1 Lampe	NE¼ NE¼ NW¼ 27-27-6W	1,466	3,012	4,299	4,351
Musgrove Petro. Corp. No. 1 Stucky	NW¼ NW¼ SW¼ 30-27-6W	1,566	3,169	4,390	4,416
Cities Service Oil Co. No. 1 "B" Fluke	SE¼ SE¼ NW¼ 10-27-9W	1,720	3,425	4,428	4,458
*E. H. Adair Oil Co. No. 1 McKenna	SE¼ NE¼ NE¼ 8-27-10W	1,762	3,580	4,521	4,540
*M. B. Armer No. 1 Christopher	SW¼ SW¼ SW¼ 36-28-7W	1,557	3,256	4,016**	4,465
Magnolia Petro. Co. No. 1 Moorhouse	NE¼ NE¼ SE¼ 6-29-5W	1,403	3,124	4,382	4,432
Beardmore Drlg. Co., et al. No. 1 Voran	SE¼ SE¼ SE¼ 11-29-7W	1,611	3,353	4,677	4,720
Southwestern Exploration Co. No. 1 Settle	SE¼ SE¼ SE¼ 18-29-7W	1,565	3,350	4,611	4,645
Beardmore Drlg. Co. et al. No. 1 Aldrich	NW¼ NW¼ NW¼ 30-30-7W	1,578	3,455	4,669†	4,703
Southwestern Exploration Co. et al. No. 1 "B" Allen	W2 SW¼ SW¼ 28-30-10W	1,751	3,808	4,840	4,870

* 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.
† Depth to the top of the Simpson, feet.

The **Spivey South** pool was discovered by Pickrell Drilling Company on the Boyle "A" lease in sec. 27, T. 30 S., R. 8 W., where an initial potential of 96 barrels of oil per day was assigned the Mississippian rocks from depths of 4,297 to 4,397 feet.

Nine of the 11 dry wildcat tests were Arbuckle tests, and several reported good shows of oil. The pertinent data on these wildcat attempts are given in Table 33. Locations of producing areas and dry wildcat tests are shown on Figure 16. Oil production data are given in Table 56 and gas production in Table 57. Information on the new oil pools is found in Table 6, and significant facts concerning the new producing zones in old fields are given in Table 7. The one secondary recovery project is reported in Table 1.

KIOWA COUNTY

The 1953 production from 2 pools: oil 5,609 barrels, gas 4,094 thousand cubic feet. Wells drilled during 1953: dry 5 including 4 dry wildcats.

Developments during 1953.—All the oil production reported in Kiowa County during the year came from the **Excel** pool. A Mississippian test by M. B. Armer near the pool on the Lorimor farm in sec. 20, T. 30 S., R. 20 W., reported only a show of oil and was abandoned as dry.

Four dry wildcat tests were attempted in Kiowa County during the year. The Wilkey and Hildebrand test on the Kennedy farm in sec. 21, T. 28 S., R. 20 W., had a show of gas in the Mississippian rocks but was not considered commercial. Pertinent data

TABLE 34.—*Dry wildcat tests drilled in Kiowa County during 1953*

Company and farm	Location	Surface elevation, feet	Depth to top of Lans.-K.C., feet	Depth to top of Arbuckle, feet	Total depth, feet
Southwestern Exploration Co. No. 1 Heath	SE¼ SW¼ SE¼ 20-28-16W	2,177	4,224	5,058	5,092
Sun Oil Co. No. 1 F. G. Ross	SW¼ SW¼ NW¼ 14-28-17W	2,181	4,212	5,080	5,102
*Wilkey & Hildebrand No. 1 Kennedy	NE¼ NE¼ SE¼ 21-28-20W	2,323	4,315	4,921**	5,000
*M. B. Armer No. 1 Koehn	SW¼ SW¼ SW¼ 29-30-19W	2,202	4,418	5,037**	5,200

* 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.

on the dry wildcat tests drilled during the year are given in Table 34.

Oil production is listed in Table 56. Similar information on gas is given in Table 57.

LABETTE COUNTY

(Map Pl. 1)

The 1953 production: oil from 17 areas in 8 active fields 49,355 barrels including 7,200 barrels from 1 secondary recovery project, gas 27,871 thousand cubic feet. Total wells drilled: 20 (estimated).

Developments during 1953.—Although several wells were drilled in Labette County, only three were reported. Oil production was more than 7 times the reported production in 1952. The increase was due largely to production in the **Price** field.

Data on oil production in the various areas in Labette County are listed in Table 56 and on gas in Table 57. Locations of areas that produced oil in 1953 and of the secondary recovery projects are shown on Plate 1. Water-flooding data are listed in Table 1.

LANE COUNTY

The 1953 production from 1 pool: oil 5,870 barrels. Wells drilled during 1953: oil 1, dry 3, total 4 including 3 dry wildcats.

Developments during 1953.—One new oil well was completed in Lane County's only oil pool, the **North Fork.** The Hugoton Production Company No. 2 Floyd test found Marmaton production between the depths of 4,400 to 4,424 feet, a second producing horizon in the pool. Initial potential of the new oil well was reported as 75 barrels of oil per day with approximately 20 percent water.

The discovery of oil in Lane County during 1952 prompted the drilling of three important dry wildcat tests during 1953. One of these was drilled by the Woodward Oil Company on the Bruner farm in the SW¼ SW¼ NE¼ sec. 17, T. 17 S., R. 30 W. Drilling from an elevation of 2,889 feet above sea level the Heebner shale was found at 3,908 feet, the Lansing limestone at 3,944 feet, and Mississippian strata at 4,571 feet. No shows were reported, and the test was abandoned at 4,712 feet depth. The Sun Oil Company drilled a rank wildcat on the Prose lease in the NW¼ NW¼ SE¼ sec. 13, T. 20 S., R. 27 W. to a total depth of 5,145 feet. Drilling from an elevation of 2,619 feet above sea level, the marker hori-

zons reported were: Heebner shale, 3,918; Lansing, 3,956; Mississippian, 4,581; Viola dolomite, 4,967; and Arbuckle dolomite 5,110 feet depth. The third dry wildcat test was drilled by the Murfin Drilling Company on the Bailer lease in the SE¼ SE¼ SE¼ sec. 16, T. 16 S., R. 28 W., to a total depth of 4,585 feet. The elevation above sea level was reported as 2,687 feet. Tops reported were: Heebner shale, 3,861; Lansing, 3,896; and Mississippian, 4,484 feet.

The new producing horizon in the county's oil pool is described in Table 7, and oil production is listed in Table 56.

LEAVENWORTH COUNTY

(Map Pl. 1)

The 1953 production: no oil reported, gas 18,545 thousand cubic feet from 1 field. Wells drilled during 1953 (reported): 1 dry wildcat well.

Developments during 1953.—No oil was reported from the **Banker's Life** and **Ackerland** fields in the western part of the county, although probably there was small production in one or both of the fields. Reported gas production was from the **Roberts-Maywood** area. A small amount of gas probably was produced in the **Linwood** field in the southern part of the county.

One wildcat well was abandoned in Leavenworth County in 1953. It is the Roy C. Hendershot No. 1 Wheat well, NW¼ NW¼ SE¼ sec. 35, T. 11 S., R. 22 E. The total depth is 1,776 feet. The top of the "Hunton" limestone was logged at 1,391 feet and its base at 1,409 feet. The top of the Arbuckle limestone was logged at 1,732 feet.

Two small gas wells were reported worked over in the **Ackerland** field. The dry wildcat well is shown on Plate 1.

LINN COUNTY

(Map Pl. 1)

The 1953 production: from 8 areas in 3 fields 72,927 barrels including approximately 67,518 barrels from 3 secondary recovery projects, gas 10,635 thousand cubic feet. Wells drilled in 1953 (recorded): oil 2, input 1, total 3. Estimated total 10.

Developments during 1953.—Oil production in Linn County showed a healthy increase over that of 1952. Most of the oil came

from secondary recovery projects (Table 1). Gas production, estimated at 10,635 thousand cubic feet, was from the **La Cygne-Cadmus** field.

Oil production in the several areas in Linn County is listed in Table 56. Locations of areas that produced oil in 1953 and of secondary recovery projects are shown on Plate 1.

LOGAN COUNTY

Wildcat wells have been drilled in Logan County from time to time, but so far no oil or gas pool has been discovered.

Exploration during 1953.—A revival of interest in Logan County took place during 1953 with the drilling of four widely scattered dry wildcat tests. Important data on the elevations and tops of marker horizons penetrated in the tests are given in Table 35. No shows of oil or gas were reported in any of the tests.

LYON COUNTY

(Map Pl. 1)

The 1953 production from 8 fields: oil 262,721 barrels including approximately 157,319 barrels from 3 secondary recovery projects. Wells drilled in 1952: oil 23, gas 1, dry 12, salt-water disposal 1, input 1, total 38 including 4 dry wildcats. Pools discovered 2.

Developments during 1953.—Oil production in Lyon County in 1953 was slightly less than in 1952.

One "Bartlesville sand" pool and 1 Viola limestone pool were found in Lyon County in 1953. The **Bradfield Northwest,** a Viola limestone pool between depths of 2,522 and 2,527 feet, was found

TABLE 35.—*Dry wildcat tests drilled in Logan County during 1953*

Company and farm	Location	Surface elevation, feet	Depth to top of Lans.-K.C., feet	Depth to top of Mississippian, feet	Total depth, feet
Cooperative Ref. Assn. No. 1 "A" Schaffer	C NE¼ NW¼ 13-12-33W	3,098	4,085	4,685	4,88
*Wycoff-Williams Drlg. Co. No. 1 Teague	SE¼ SE¼ SE¼ 23-13-35W	2,878	3,744	4,505	4,60
Wycoff-Williams Drlg. Co. No. 1 Bretz	NE¼ NE¼ SE¼ 5-12-37W	3,262	3,942	4,710	4,91
*Wycoff-Williams Drlg. Co. No. 1 Gordon	NW¼ NE¼ NE¼ 7-14-34W	3,015	3,863	4,642	4,74

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

TABLE 36.—*Dry wildcat tests drilled in Lyon County during 1953*

Company and farm	Location	Depth to top of Lans.-K.C., feet	Depth to top of Mis-sissippian, feet	Depth to top of Viola, feet	Depth to top of Arbuckle, feet	Total depth, feet
*Ben F. Brack Oil Co., Inc. No. 1 Jett	NW¼ NW¼ NW¼ 27-18-12E	.....	2,030	2,583	2,701	2,725
*Ben F. Brack Oil Co., Inc. No. 1 Baker	NW¼ NW¼ SE¼ 18-20-10E	1,736°	2,355	2,806	2,850°°	2,900
Shell Oil Co., Inc. No. 1 Johnson	SE¼ NE¼ NE¼ 15-20-11E	982	1,996	2,478	2,567	2,618
Ben F. Brack Oil Co., Inc. No. 1 Helmer	SW¼ SW¼ NW¼ 32-20-11E	1,088	2,126	2,614	2,692	2,742

* 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.

† Depth to the top of the Simpson, feet.

by the White & Ellis Drilling Company No. 1 Jones well, in the NE¼ SW¼ SW¼ sec. 13, T. 21 S., R. 10 E. The initial daily production of the well was reported as 25 barrels of oil. The **Welch-Mohr** pool in the "Bartlesville sand" between depths of 2,293 and 2,315 feet was discovered late in the year when the C. L. Sheedy No. 1 Welch well was drilled in the NE¼ NE¼ SE¼ sec. 30, T. 20 S., R. 10 E. The initial daily potential of the well was rated at 17 barrels of oil. Two smaller oil wells and one dry hole were reported in the field later in the year.

Data on the four dry wildcat wells drilled in Lyon County in 1953 are listed in Table 36.

The most drilling activity in Lyon County in 1953 was in the **Bradfield** field, where 13 oil wells, 1 gas well (shut-in), and 4 dry holes were reported. Two oil wells and 3 dry holes were reported in the Lyon County part of the **Atyeo** field, and 1 oil well in the **Fankhouser** field. A salt-water disposal well was drilled in the **Bushong** field.

Oil production in the various Lyon County fields is listed in Table 56. Data on secondary recovery projects are summarized in Table 1. Locations of areas that produced oil in 1953, water-flooding projects, and dry wildcat tests are shown on Plate 1.

McPHERSON COUNTY

(Map Fig. 7)

The 1953 production from 37 pools: oil 3,348,787 barrels, gas none. Wells drilled during 1953: oil 48, gas 1, dry 36, total 85 including 14 dry wildcats. New pools discovered 7, combined 4.

Developments during 1953.—Although the total annual oil production decreased modestly from the previous year, considerable excitement and a very active drilling campaign were inaugurated when the first well in the new **Lively** pool was completed. In this new pool, which is just west of the **Ritz-Canton** pool, 29 new Mississippian producers were brought in during the year. These include the discovery wells of the **Lively East** and **Lively South** pools, which were combined with the **Lively** pool during the year. Production comes from a zone at the top of the Mississippian strata, which averages about 2,950 feet in depth. Initial potentials of new wells range from minimum to about 250 barrels of oil per day. These wells produced more than 70,000 barrels of oil during 1953.

TABLE 37.—*Dry wildcat tests drilled in McPherson County during 1953*

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
E. K. Carey Drlg. Co., Inc. No. 1 Lundquist	NW¼ NW¼ NE¼ 5-17-4W	1,549	2,545	3,225	3,877	3,895
*Hanco Oil & Gas Co. No. 1 Dalstein	SE¼ SW¼ SE¼ 10-17-4W	1,525	2,516	3,211	3,902	3,926
Anschutz Drlg. Co. No. 1 Priddy	SE¼ SE¼ SE¼ 12-18-4W	1,411	2,338	2,979	3,625	3,662
*Anschutz Drlg. Co. No. 1 Almstrom	NE¼ NE¼ NW¼ 26-18-4W	1,490	2,481	3,101	3,741	3,791
*Melland Drlg. Co. No. 1 Christianson	NE¼ NE¼ NW¼ 12-18-5W	1,409	2,525	3,147	3,749	3,780
*LaFayette Oil Co. No. 1 Kinsinger	SE¼ SE¼ NW¼ 18-19-3W	1,495	2,493	3,143	3,802	3,832
*Anschutz Drlg. Co. No. 1 Suffield	NW¼ NW¼ SW¼ 12-19-4W	1,516	2,535	3,160	3,816	3,846
Anschutz Drlg. Co. No. 1 Schrag	SE¼ SE¼ NE¼ 27-19-4W	1,488	2,558	3,190	3,785†	3,839
Skelly Oil Co. No. 1 Conway	N2 SW¼ NE¼ 30-19-4W	1,558	2,700	3,383	3,982	4,288
*Johnson Bros. No. 1 Siedel	NW¼ NE¼ NW¼ 13-19-5W	1,519	2,657	3,287	.....	3,338
Aladdin Petro. Corp. et al. No. 1 Johns	SE¼ SE¼ SE¼ 28-20-1W	1,519	2,321	2,919	3,528	3,550
*Natl. Assoc. Petro. Co. No. 1 Goering	NE¼ NE¼ NE¼ 16-20-2W	1,541	2,340	2,991	.....	3,030
Trans-Era Petro., Inc. et al. No. 1 Smith	SW¼ SW¼ NE¼ 28-20-4W	1,483	2,595	3,257	3,887	3,939
E. K. Carey Drlg. Co., Inc. No. 1 Friesen	NE¼ NE¼ SE¼ 36-21-5W	1,546	2,733	3,401	4,023	4,052

* 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 Simpson, feet.

Other new pool discoveries during the year include the **Groveland, Groveland South, Gypsum Creek South,** and **Windom** pools. The **Groveland** and **Groveland South** pools are Viola production brought in by Anschutz Drilling Company in secs. 10 and 14, T. 20 S., R. 4 W. Initial potentials of 157 and 141 barrels of oil per day were assigned the Viola dolomite at an average depth of 3,724 feet, respectively.

The **Windom** pool, named for a small town in the southwestern part of the county, was discovered by Trans-Era Petroleum, Inc., in sec. 30, T. 19 S., R. 5 W., just east of the **Welch-Bornholdt** pool. Production from the new pool comes from the Mississippian rocks from 3,409 to 3,418 feet; an initial potential of 175 barrels of oil per day was assigned.

The **Gypsum Creek South** is a Mississippian pool. The discovery well in sec. 9, T. 17 S., R. 1 W., was given a minimum potential from depths of 2,627 to 2,641 feet.

During the year the **Gypsum Creek North** pool (Saline County) was combined with the **Gypsum Creek** pool, and the **Welch** and **Smyres** of Rice County were combined with the **Bornholdt** of McPherson County, the pool now being called the **Welch-Bornholdt.**

Only 1 of the 14 dry wildcat tests reported shows of oil or gas. Pertinent data on the tops of marker horizons are given in Table 37. Five LPG storage wells into the Wellington salt section were drilled by the Skelly Oil Company in sec. 30, T. 19 S., R. 4 W.

Oil production pool data for McPherson County are listed in Table 56, and the names of the gas areas still listed as active in Table 57. Locations of producing areas and dry wildcat tests are shown on Figure 7. Information on the county's secondary recovery projects is given in Table 1. The new pools are described in Table 6.

MARION COUNTY

(Map Pl. 1)

The 1953 production from 24 fields: oil 679,940 barrels, gas 108,986 thousand cubic feet. Wells drilled in 1953: oil 26, gas 1, dry 43, salt-water disposal 3, total 73 including 15 dry wildcat wells. Pools discovered: oil 3, gas 1.

Developments during 1953.—Oil production in Marion County showed a decided increase in 1953 over that of 1952, when 567,290 barrels of oil were produced.

Data on 15 widely scattered dry wildcat wells drilled in the county in 1953 are listed in Table 38.

The Anderson-Prichard Oil Corporation No. 1 "A" Scully well, SE¼ NW¼ NW¼ sec. 34, T. 18 S., R. 2 E., is the discovery well of the **Durham** field. The pool is in the Viola limestone between depths of 2,899 and 2,901 feet. The initial daily production

TABLE 38.—*Dry wildcat tests drilled in Marion County during 1953*

Company and farm	Location	Depth to top of Lans.-K.C., feet	Depth to top of Mississippian, feet	Depth to top of Arbuckle, feet	To de fe
*Franco Central Oil Co. et al. No. 1 George Meyer	NW¼ NW¼ NE¼ 9-17-3E	1,834	2,465	3,130	3,
*W. R. Wilson et al. No. 1 Svitak	C SE¼ SW¼ 19-18-4E	1,854	2,440	3,001	3,
*W. R. Wilson et al. No. 1 Balzer	SE¼ NW¼ NE¼ 21-19-3E	1,828	2,383	2,882	2,
*Franco Central Oil Co. No. 1 Seifert	SW¼ SW¼ NW¼ 36-19-3E	1,780	2,315	2,636§	2,
Berry & Eells No. 1 Phillips	SW¼ SW¼ NW¼ 23-19-4E	1,773	2,291	2,613§	2,
*Rex & Morris Drlg. Co. No. 1 Krauss	SW¼ SW¼ SW¼ 24-19-4E	1,800	2,357	2,623§	2,
*Mendenhall Drlg. Co. No. 1 Siebert	NW¼ NW¼ NE¼ 11-20-3E	1,778	2,329	2,603§	2,
*Mergen et al. No. 1 Fulkerson	NE¼ SE¼ NW¼ 2-20-4E	1,749	2,240	2,539§	2,
*Stelbar Oil Corp., Inc. No. 1 Demand	SW¼ NE¼ SW¼ 6-20-4E	1,746	2,263	2,514‡‡	2,
*A. J. Stormfeltz No. 1 Allen	SW¼ SW¼ SE¼ 29-20-4E	.....	2,302	2,699	2,
*W. R. Wilson et al. No. 1 Klassen	NE¼ SE¼ NW¼ 32-21-1E	2,337	2,979	3,564	3,
*Drillers Production Co., Inc. No. 1 Parks	SE¼ SE¼ SE¼ 22-21-2E	2,155	2,813	3,234†	3,
*Gruenerwald et al. No. 1 Stutler	NE¼ NW¼ NW¼ 28-21-3E	2,002	2,591	2,954§	2,
*J. Razook No. 1 Gillett	E/2 E/2 SW¼ 5-22-3E	1,976	2,572	2,852††	2,
*H. J. Uhl et al. No. 1 Poe	NW¼ NE¼ SE¼ 16-22-3E	1,980	2,586	2,869††	2,

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

§ Depth to the top of the Viola, feet.

‡‡ Depth to the top of the Maquoketa, feet.

† Depth to the top of the Simpson, feet.

†† Depth to the top of the "Hunton," feet.

of the well was rated at 202 barrels of oil. At the close of the year, three producing wells and two dry holes had been drilled in the field. The **Edmonds** is a Mississippian limestone pool that was discovered by the K. T. Wiedemann No. 1 Edmonds well, in the SE¼ SE¼ NW¼ sec. 31, T. 22 S., R. 4 E. The producing zone is between depths of 2,471 and 2,474 feet. The initial daily production of the well was rated at 25 barrels of oil. The **Lehigh North** gas pool, in Mississippian limestone between depths of 2,770 and 2,775 feet, was discovered by the Anderson-Prichard Oil Corporation No. 1 Wasemiller well, in the NW¼ NW¼ SW¼ sec. 23, T. 19 S., R. 1 E. The well was rated at 2.5 million cubic feet of gas per day. The **Quarry Siding** oil pool, in Mississippian limestone between depths of 2,302 and 2,344 feet, was discovered by the H. B. Ratzlaff et al. No. 1 Groening well, in the NE¼ NW¼ SW¼ sec. 16, T. 19 S., R. 4 E. The initial daily production of the well was rated at 22 barrels of oil. By the end of the year one additional oil well had been drilled.

Oil production statistics for Marion County are listed in Table 56. Gas statistics are listed in Table 57. Locations of areas that produced oil in 1953 are shown on Plate 1. The new pools are described in Table 6.

MARSHALL COUNTY

(Map Pl. 1)

Test wells have been drilled in Marshall County from time to time but commercial production of oil or gas has not been established. Two test wells were put down in 1953.

Exploration during 1953.— The Kansas Oil Company No. 1 Brosa, SW¼ SW¼ SE¼ sec. 16, T. 4 S., R. 10 E., was drilled to a total depth of 1,067 feet. Pre-Cambrian rocks were logged at a depth of 1,065 feet. The Kansas Oil Co. No. 1 Fisher well, NE¼ SW¼ SW¼ sec. 9, T. 4 S., R. 10 E., was drilled to a total depth of 1,117 feet. Pre-Cambrian granite was logged at 1,104 feet. No shows of oil or gas in these tests were reported in the scout reports.

The Geological Survey has record of 20 wells drilled in Marshall County previous to 1953.

MEADE COUNTY

(Map Fig. 14)

The 1953 production from 10 pools: oil 470,722 barrels, gas 2,987,016 thousand cubic feet. Wells drilled during 1953: oil 8, gas 9, dry 13, total 30 including 1 dry wildcat. New pools discovered 3, combined 1.

Developments during 1953.—Because of 30 attempts at finding new reserves of oil and gas and the proving out of previously discovered pools, the total oil production from Meade County during 1953 was double the 1952 figure, and the total gas production was six times last year's total. Three new pools were discovered during the year.

The **Kismet East** pool was discovered by the Columbian Fuel Corporation in their first test on the Wheatley farm in sec. 30, T. 33 S., R. 30 W. Gas was found in sandstone of the Morrowan Series between depths of 5,645 and 5,652 feet. The test was taken into Chesteran rocks before being plugged back as a Morrowan producer with an initial potential of 5.5 million cubic feet of gas per day. The second pool discovered during the year was the **Bruno,** the discovery well being drilled by the Columbian Fuel Corporation on the Meyer farm in sec. 20, T. 33 S., R. 30 W. An initial potential of 138 barrels of oil per day from Mississippian rocks from 5,698 to 5,716 feet depth was assigned. To the northeast, Columbian Fuel Corporation brought in the discovery well of the **Bruno Northeast** Morrowan pool on the Armentrout lease in sec. 16, T. 33 S., R. 30 W. An initial potential of 1,033 barrels was assigned the zone from 5,721 to 5,731 feet depth.

During the year, the **Theis** pool (Clark County) was combined with the **McKinney** pool, so now the **McKinney** pool extends into Clark County.

The Morrowan rocks from 5,708 to 5,782 feet depth were named a new producing zone in the **Adams Ranch** pool during the year, when the Columbian Fuel Corporation found commercial quantities of gas in the No. 1 Adams well in sec. 4, T. 25 S., R. 30 W.

The dry wildcat drilled during the year was a deep test by the Skelly Oil Company on the Hanson farm in the SW¼ SW¼ NE¼ sec. 2, T. 35 S., R. 28 W. The elevation above sea level of the test was reported as 2,377 feet, and the hole was taken to a total depth of 6,617 feet. Tops reported were: Heebner shale, 4,467; Toronto limestone, 4,491; Lansing-Kansas City, 4,624; Mor-

rowan Series, 5,925; Chesteran Series, 6,085; and Ste. Genevieve limestone, 6,513 feet depth.

Routine drilling in the older fields added six new gas wells to the **McKinney** gas field, and five new oil wells to the **Novinger.**

The new pools are listed in Table 6 and the new producing zone is described in Table 7. Locations of producing areas and the dry wildcat tests are shown on Figure 14. Oil production is listed in Table 56, and gas production in Table 57.

MIAMI COUNTY

(Map Pl. 1)

The 1953 production: oil from 15 areas in 3 fields 586,415 barrels including 395,343 barrels from secondary recovery projects, gas 67,126 thousand cubic feet. Wells drilled in 1953 (estimated) 125.

Developments during 1953.—Oil production during 1953 in Miami County decreased from 1952. Drilling was chiefly connected with water-flooding operations, which are important in the county.

Data on secondary recovery projects in Miami County are listed in Table 1. Oil production in the various fields is listed in Table 56 and gas in Table 57. Locations of areas that produced oil in 1953 and of secondary recovery projects are shown on Plate 1.

MITCHELL COUNTY

Wildcat wells have been drilled from time to time in Mitchell County, but to date no oil or gas pool has been discovered.

Exploration during 1953.—Two wildcat tests were attempted in Mitchell County during 1953. An Arbuckle test was put down on the Stillwell property by the Murfin Drilling Company to a total depth of 4,032 feet. The test was located in the NW¼ SW¼ NW¼ sec. 12, T. 6 S., R. 6 W., and was drilled from an elevation of 1,558 feet above sea level. Tops reported from the sample log of the well were: Heebner shale, 2,392; Lansing, 2,489; Mississippian, 3,130; "Hunton," 3,440; Maquoketa shale, 3,622; Viola dolomite, 3,680; Simpson, 3,885; and Arbuckle dolomite, 3,982 feet.

The National Associated Petroleum Company drilled a tight hole on the Thiessen property in the SW¼ SW¼ SE¼ sec. 15, T. 6 S., R. 9 W. Elevation as given on the driller's log was 1,436 feet

above sea level, and the hole was reported as reaching a total depth of 3,960 feet.

The Murfin Drilling Company No. 1 Wessling test in sec. 35, T. 6 S., R. 7 W. drilled during 1952, was reported deepened to a total depth of 4,555 feet during 1953.

MONTGOMERY COUNTY

(Map Pl. 1)

The 1953 production: oil from 51 areas in 10 fields 724,215 barrels, including approximately 243,304 barrels from water-flooding projects; gas 597,832 thousand cubic feet. Wells drilled in 1953 (recorded): oil 16, dry 2, input 16, total 34. Estimated total 125.

Developments during 1953.— Oil production in Montgomery County was less in 1953 than in 1952. A large percentage of the production came from water-flooding projects, and much of the drilling was in connection with them. Hydraulic-fracturing also contributed materially to the drilling activity and to the total oil production.

Oil production in the various areas in Montgomery County is listed in Table 56; gas in Table 57. Data on secondary recovery operations are listed in Table 1. Locations of areas of 1953 oil production and of secondary recovery projects are shown on Plate 1.

MORRIS COUNTY

(Map Pl. 1)

The 1953 production: oil from 5 fields 38,699 barrels: gas 48,371 thousand cubic feet. Wells drilled in 1953 (reported): oil 4, dry 4, total 8 including 3 dry wildcats. Pools discovered 2.

Developments during 1953.—Oil production in Morris County was somewhat less in 1953 than in 1952. Gas production remained about constant.

The **John Creek,** a Viola limestone pool between depths of 3,090 and 3,096 feet, was discovered by the Wm. Gruenerwald No. 1 Williams well in the NW¼ NE¼ NW¼ sec. 26, T. 15 S., R. 9 E. The discovery well was rated as having an initial daily production of 426 barrels of oil. The Musgrove Petroleum Corporation No. 1 Bura well, SW¼ NW¼ SW¼ sec. 30, T. 17 S., R. 5 E., is the discovery well of the **Nelson West**, a Mississippian lime-

stone pool between depths of 2,297 and 2,313 feet. The well was rated as having an initial daily production of 60 barrels of oil.

The Continental Oil Company No. 1 Anderson, NW¼ NE¼ NW¼ sec. 17, T. 14 S., R. 7 E., is a wildcat test that was drilled to a total depth of 2,859 feet. Tops reported are as follows: Lansing, 1,563; Kansas City, 1,669; Mississippian, 2,069; Kinderhookian, 2,126; "Hunton," 2,326; Maquoketa, 2,524; Viola, 2,607; Decorah, 2,679; Simpson, 2,714; and Arbuckle, 2,803 feet.

A Mississippian test, the Albert-Penn & Hall No. 1 Whitehair well, SW¼ NW¼ NW¼ sec. 17, T. 15 S., R. 5 E., was drilled to a total of 2,180 feet. The base of the Kansas City group was recorded at 1,965 feet, top of the "Burgess sand" at 2,133 feet, and top of the Mississippian at 2,143 feet. The J. H. Wagner Drilling Company No. 1 Brewer well, Cen. S½ SE¼ sec. 11, T. 16 S., R. 7 E., reached the top of the Lansing group at 1,390 feet. The well was abandoned at a total depth of 1,485 feet.

Two new oil wells in the **Three Mile Creek South** field and one dry hole in the **Three Mile Creek** field were reported.

Oil production statistics in the Morris County fields are listed in Table 56 and gas in Table 57. Locations of areas that produced oil in 1953 and the dry wildcat tests are shown on Plate 1. The new pools are given in Table 6.

MORTON COUNTY

(Map Pl. 2)

The 1953 production from 6 pools: oil none, gas 24,357,419 thousand cubic feet. Wells drilled during 1953: oil none, gas 77, dry 11, total 88 including 2 dry wildcats. New pools discovered 3.

Developments during 1953.—Activity in Morton County during 1953 was stimulated by successful developments in the **Greenwood** gas pool. The **Hugoton Gas Area** in Morton County had 31 new Chase group gas wells added during the year, and the 249 producing **Hugoton** gas wells accounted for 24,230,135 thousand cubic feet of gas, bringing the cumulative for this portion of the huge field to more than 159,748 million cubic feet of gas since 1930.

Three new gas pools were discovered in Morton County during 1953. The **Westola** gas pool was discovered by the Colorado Interstate Gas Company et al. No. 1 Stoops test in sec. 5, T. 32 S., R. 42 W. The well was reported as having a capacity of 12.5 million

cubic feet of gas per day from the Lansing-Kansas City rocks between 3,534 and 3,544 feet depth. The test, taken into the Mississippian rocks to a total depth of 5,269 feet, found the top of Chesteran rocks at 5,138 feet depth.

The **Greenwood South** gas pool was discovered by Cities Service Oil Company No. 1 Interstate "A" test in sec. 19, T. 34 S., R. 43 W., next to the Colorado State line. Production capacity of more than 9 million cubic feet of gas per day was assigned from Morrowan rocks from 4,238 to 4,250 feet depth. This test also was taken into the Mississippian rocks to a total depth of 4,715 feet. The Cities Service Oil Company added three other gas wells to the pool before the year's end.

The Colorado Oil and Gas Company and The Superior Oil Company brought in the **Dreyer** gas pool discovery well on the Dreyer lease in sec. 5, T. 32 S., R. 43 W. According to the scout report on the test, the gas occurred between 2,966 and 3,244 feet depth within the Topeka limestone; the Nomenclature Committee named the tops of two groups—Wabaunsee and Shawnee—as the producing zones. The initial capacity was reported as 4.5 million cubic feet of gas per day.

In the **Richfield** gas pool the Morrowan was named as a new producing zone. The J. M. Huber Corporation No. 1 Church well was reported as having a capacity of 12.5 million cubic feet of gas from 5,397 to 5,462 feet depth.

The Wabaunsee and Shawnee groups from depths of 2,988 to 3,018 and 3,105 to 3,110 feet, respectively, were named by the Nomenclature Committee in the Cities Service Oil Company No. 1 Boehm well in sec. 11, T. 33 S., R. 42 W., as new producing zones in the **Greenwood** gas pool. During 1953, 39 new gas wells, extending over most of three townships, were added to the **Greenwood** pool. These new wells ranged from about 0.5 million to more than 35 million cubic feet of gas per day capacity. The average capacity of the new wells is about 23 million cubic feet per day.

The Cities Service Oil Company drilled two dry wildcats during the year in Morton County. The No. 1 Miller test in the NE¼ NE¼ SW¼ sec. 14, T. 35 S., R. 42 W. was drilled to a total depth of 3,975 feet from an elevation of 3,578 feet above sea level. The Lansing-Kansas City was reported at 3,234 feet, and the Marmaton group at 3,510 feet. Several shows of oil and gas were reported in the test. The second test, made on Federal government

land in the Cen. SW¼ NE¼ sec. 6, T. 35 S., R. 43 W., had a total depth of 4,735 feet. Drilling from an elevation of 3,559 feet above sea level, the reported tops were: Lansing-Kansas City, 2,995; Marmaton group, 3,335; Morrowan rocks, 4,140; Chesteran rocks, 4,600; and Ste. Genevieve rocks, 4,722 feet depth. Considerable testing was done on the hole.

The new pools are described in Table 6, and the new producing zones in Table 7. The Morton County gas wells and dry wildcat tests are shown on Plate 2. The named oil pool is listed in Table 56, and gas production is given in Table 57.

NEMAHA COUNTY

(Map Pl. 1)

The 1953 production from 3 fields: oil 47,519 barrels. Wells drilled in 1953: oil 4, dry 4, total 8 including 1 dry wildcat. Pools discovered 1.

Developments during 1953.—Oil production in Nemaha County showed a marked increase in 1953 over the production of 1952, when 34,223 barrels were reported.

One new oil well and one dry hole were drilled in the **Sabetha** field. The O. O. Wallace and Fred Hewitt No. 1 Edelman well, NW¼ NW¼ NW¼ sec. 26, T. 2 S., R. 14 E., is the discovery well of the **Strahm East** pool. The well, completed in June 1953, was rated as having an initial daily production of 25 barrels of oil from the "Hunton" limestone between depths of 2,826 and 2,837 feet. A dry hole, in the SE¼ SE¼ SW¼ sec. 22, T. 2 S., R. 14 E., had been abandoned earlier in the year. Another dry hole was abandoned in the SW¼ SW¼ SW¼ sec. 22 soon after the discovery completion. Later in the year a 10-barrel well was completed in the S½ SE¼ SW¼ sec. 22 and a 15-barrel well in the SE¼ NW¼ NW¼ sec. 26.

A wildcat well, the Skelly Oil Company No. 1 H. L. Hook, was abandoned at a total depth of 2,716 feet in the NW¼ SW¼ SW¼ sec. 11, T. 3 S., R. 14 E. Tops were reported as follows: Howard limestone, 790; Topeka limestone, 833; Lansing, 1,278; Kansas City, 1,368; "Cherokee," 1,800; Mississippian, 2,496; Kinderhookian, 2,689; "Hunton," 2,920; Maquoketa, 3,557; and Viola, 3,620 feet.

Oil production from the Nemaha County fields is listed in Table 56. Locations of oil fields and of the dry wildcat test are shown on Plate 1. The new pool is described in Table 6.

NEOSHO COUNTY

(Map Pl. 1)

The 1953 production: oil from 33 areas in 9 fields 612,451 barrels including 346,763 barrels from secondary recovery projects, gas 129,315 thousand cubic feet. Wells drilled in 1953 (reported): oil 41, gas 1, dry 18, input 32, water supply 1, total 93. Estimated total 150.

Developments during 1953.—There was much activity in Neosho County in 1953, but the production of oil was somewhat less than in 1952 when 645,001 barrels were reported.

The greatest reported drilling activity was in the large **Humboldt-Chanute** field in which 40 oil wells, 1 gas well, 15 dry holes, 32 repressuring wells, and 1 water-supply well were reported.

One oil well and 1 dry hole in the **Erie** field and a dry hole in each of the **St. Paul-Walnut** and the **Thayer** fields were reported.

Hydraulic fracturing was an important activity in Neosho County throughout the year.

Oil production in the various Neosho County fields is listed in Table 56 and gas in Table 57. Data on water-flooding operations are summarized in Table 1. Locations of areas that produced oil in 1953 and of water-flooding projects are shown on Plate 1.

NESS COUNTY

(Map Fig. 12)

The 1953 production from 4 pools: oil 283,441 barrels. Wells drilled during 1953: oil 1, dry 12, total 13 including 8 dry wildcats.

Developments during 1953.—The total county oil production for 1953 was about 11 percent less than that of the previous year. Only one oil well, an extension to the **Aldrich** pool, was added to the county's producing pools during the year.

Of the eight dry wildcat tests drilled only two had shows of oil or gas. The Transit Corporation et al. No. 1 Castor test in sec. 32, T. 17 S., R. 26 W., reported a show of oil in the Mississippian rocks below a depth of 4,502 feet. In the Sohio Petroleum Company et al. No. 1 Hermon well in sec. 36, T. 18 S., R. 24 W., a show of oil and gas was reported from 4,157 to 4,186 feet depth. Important data on the dry wildcat tests are given in Table 39.

Locations of producing areas and dry wildcat tests are shown on Figure 12. Oil production data are given in Table 56.

TABLE 39.—*Dry wildcat tests drilled in Ness County during 1953*

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
The Palmer Oil Corp. No. 1 Ryan	SW¼ SW¼ SW¼ 23-16-21W	1,559	3,723	4,201	4,427
Rooney, Siegfried & Thomas No. 1 Dumler	NW¼ NW¼ SE¼ 10-17-26W	1,955	3,914	4,556	4,660
Transit Corp. et al. No. 1 Castor	NE¼ NE¼ NW¼ 32-17-26W	1,930	3,919	4,491	4,565
Sohio Petro. Co. et al. No. 1 Hermon	NW¼ NW¼ SE¼ 36-18-24W	.....	3,657	4,248	4,750
Barnett Oil Co. No. 1 Wilhelm	SE¼ SE¼ NW¼ 20-19-21W	.....	3,800	4,398	4,500
*Rooney, Siegfried & Thomas No. 1 Johnson	SW¼ SW¼ NW¼ 5-19-25W	1,830	3,957	4,557	4,660
M. B. Armer No. 1 Foss	SE¼ SE¼ NE¼ 31-20-22W	1,450	3,790	4,407	4,507
Barnett Oil Co. No. 1 Bader	SE¼ SE¼ SE¼ 36-20-22W	1,310	3,682	4,265	4,381

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

NORTON COUNTY

(Map Fig. 5)

The 1953 production from 4 pools: oil 104,243 barrels. Wells drilled during 1953: oil 26, dry 22, total 48 including 17 dry wildcats. New pools discovered 4, combined 2.

Developments during 1953.—Because of the discovery of the **Norton** Arbuckle pool in June 1953, considerable interest was shown in the county during the rest of the year. Three other Arbuckle pools were discovered and a total of 26 new oil wells were completed, aiding in doubling the previous year's county total oil production figure.

The **Norton** pool was discovered by Jones, Shelburne and Farmer in a test on the Lawson farm, about 7 miles southwest of the town of Norton, in sec. 36, T. 3 S., R. 24 W. An initial potential of 200 barrels of oil per day was assigned the Arbuckle rocks from 3,778 to 3,790 feet. The **Norton East** pool was discovered by Jones, Shelburne and Farmer in a test on the Mindrup property in sec. 31, T. 3 S., R. 23 W. The **Norton South** pool was brought in by Harry Gore in the first test on the Scott farm in sec. 1, T. 4 S., R. 24 W. Since these pools were all producing from the same horizon

and in close proximity, the Nomenclature Committee combined them, assigning the name **Norton**.

The **Ray Northwest** pool was discovered by the Empire Drilling Company and Cranlyn Oil, Inc., No. 1 Schugart well in sec. 22, T. 5 S., R. 21 W. The discovery well was named an Arbuckle producer from depths of 3,605 to 3,606; however, the scout report carried the hole as dry. Some production was reported from the lease, however, later in the year.

The 17 dry wildcat tests were widely scattered over the county. In the northern half of the county the Arbuckle dolomite is either absent or very thin. Even in the **Norton** pool where the Arbuckle produces, the pay zone is thin.

The dry wildcat drilled by Jones, Shelburne and Farmer on the Horesky farm in sec. 29, T. 3 S., R. 23 W. found only 53 feet of Arbuckle dolomite. Among the other dry wildcat tests reporting shows of oil was the Jones, Sheburne and Farmer No. 1 Peak well in sec. 35, T. 4 S., R. 22 W., where 270 feet of free oil was reported from depths of 3,607 to 3,615 feet. Important data concerning the numerous other dry wildcat tests are tabulated in Table 40.

The new pools are described in Table 6. Oil production from the county's oil pools is given in Table 56. Locations of producing areas and dry wildcat tests are shown on Figure 5.

TABLE 40.—*Dry wildcat tests drilled in Norton County during 1953*

Company and farm	Location	Surface elevation, feet	Depth to top of Lans.-K.C., feet	Depth to top of Arbuckle, feet	Tot dep fe
Jones, Shelburne & Farmer, Inc. No. 1 City of Norton	NE¼ NE¼ SE¼ 27-2-23W	2,347	3,410	3,643	3,7
*Empire Drlg. Co. et al. No. 1 Wallack	NW¼ NW¼ NW¼ 27-2-23W	2,354	3,392	3,627	3,6
Barnett Oil Co. No. 1 Legg	SE¼ SE¼ SE¼ 32-2-24W	2,407	3,397	3,665§§	3,6
*Harry Gore No. 1 Snyder	NE¼ NE¼ NW¼ 9-3-23W	2,274	3,335	3,557§§	3,5
*Jones, Shelburne & Farmer, Inc. No. 1 Horesky	SE¼ SE¼ SE¼ 29-3-23W	2,379	3,483	3,719	3,7
Harry Gore No. 1 Hershiser	SE¼ SE¼ SE¼ 34-3-23W	2,438	3,533	3,768§§	3,8
*Sauvage & Dunne Drlg. Co., Inc. No. 1 Collins	SE¼ SW¼ SW¼ 6-3-24W	2,473	3,455	3,745§§	3,7

*Jones, Shelburne & Farmer, Inc. No. 1 Gooder	NE¼ NE¼ NE¼ 23-3-24W	2,384	3,426	3,674§§	3,720
Harry Gore et al. No. 1 Clark	SW¼ SW¼ NE¼ 30-3-24W	2,420	3,443	3,752	3,830
*Anderson-Prichard Oil Corp. No. 1 Brooks	SE¼ SE¼ SE¼ 17-3-25W	2,483	3,468	3,791	3,895
*Jones, Shelburne & Farmer, Inc. No. 1 Wiley	SW¼ SW¼ SW¼ 19-4-22W	2,256	3,410	3,672§§	3,720
Trans-Era Petro., Inc. No. 1 Troube	SW¼ SW¼ SW¼ 20-4-22W	2,270	3,448	3,734§§	3,764
*Jones, Shelburne & Farmer, Inc. No. 1 Peak	SW¼ SW¼ SW¼ 35-4-22W	2,188	3,368	3,619	3,675
Harry Gore No. 1 Walters	SW¼ SW¼ SE¼ 36-4-22W	2,183	3,374	3,648	3,710
*Jones, Shelburne & Farmer, Inc. No. 1 Damewood	NE¼ NE¼ NE¼ 29-5-21W	2,242	3,432	3,677/	3,682
Trans-Era Petro., Inc. et al. No. 1 Schafer	NW¼ NW¼ NW¼ 3-5-22W	2,206	3,380	3,636	3,644
Cities Service Oil Co. No. 1 Sullivan	SE¼ SE¼ NW¼ 26-5-23W	2,333	3,503	3,838	3,880

*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 granite wash, feet.
/ Depth to the top of the Reagan, feet.

OSBORNE COUNTY

(Map Fig. 6)

The 1953 production from 1 pool: oil 82,815 barrels. Wells drilled during 1953: oil none, dry 6, salt-water disposal 1, total 7 including 4 dry wildcats.

Developments during 1953.—Although no new oil wells were found in the exploratory drilling in Osborne County during 1953, the total county oil production increased about 12 percent.

Of the four dry wildcat tests drilled during the year, only one had a show of oil. This show occurred in the Arbuckle rocks between depths of 3,476 to 3,495 feet in the Sohio Petroleum Company test on the Kraft farm in sec. 22, T. 9 S., R. 15 W. All the dry wildcat tests were drilled in the western part of the county. Data concerning the marker horizons encountered in drilling these dry wildcats are listed in Table 41.

The location of the producing areas and a part of the dry wildcat tests are shown on Figure 6. Osborne County's oil production is listed in Table 56.

TABLE 41.—*Dry wildcat tests drilled in Osborne County during 1953*

Company and farm	Location	Surface elevation, feet	Depth to top of Lans.-K.C., feet	Depth to top of Penn. Basal Cong., feet	Depth to top of Arbuckle, feet	Total depth, feet
Anderson-Prichard Oil Corp. No. 1 Delaney	NW¼ SW¼ NE¼ 29-6-15W	1,845	3,143	3,589	3,965	4,010
*Murfin Drlg Co. et al. No. 1 Madsen	NE¼ NE¼ SE¼ 17-9-14W	2,036	3,308	3,725	4,170	4,206
Anderson-Prichard Oil Corp. No. 1 Beisner	SW¼ NW¼ NE¼ 5-9-15W	2,051	3,264	3,632	3,816	3,842
Sohio Petro. Co. No. 1 Kraft	SW¼ SW¼ NW¼ 22-9-15W	2,045	3,260	3,640	3,875	3,928

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

OTTAWA COUNTY

Wildcat wells have been drilled from time to time in Ottawa County, but as yet no oil or gas pool has been discovered.

Exploration during 1953.—One dry wildcat test was drilled in Ottawa County during 1953. A. J. Stormfeltz and associates drilled the test on the Fisher farm, in the NW¼ NW¼ NE¼ sec. 18, T. 12 S., R. 1 W., to a total depth of 3,300 feet before abandoning the hole. The reported elevation of the test was 1,231 feet above sea level, measured from the rotary bushing. Tops reported were: Lansing-Kansas City, 1,980; Mississippian, 2,606; "Hunton" dolomite, 3,080; Maquoketa shale, 3,116; and Viola dolomite, 3,267 feet. No shows were reported.

PAWNEE COUNTY

(Map Fig. 11)

The 1953 production from 23 pools: oil 1,110,321 barrels, gas 3,146,047 thousand cubic feet. Wells drilled during 1953: oil 72, gas 6, dry 78, salt-water disposal 1, total 157 including 28 dry wildcats. New pools discovered 10, revived 1, combined 2.

Developments during 1953.—The remarkable production of the Larned Arbuckle pool assisted in enabling the county's total annual oil production to double the 1952 figure. The increased interest is indicated by three times as many tests being made during 1953 as during 1952.

Exploratory drilling resulted in the finding of 10 new pools in the county. These new pools are the **Conkling, Dunes, Dunes Southwest, Evers Northeast, Hearn, Oro, Oro West, Shady Southwest, Sweeney,** and **Sweeney Southwest.** The **Hearn, Sweeney,** and **Sweeney Southwest** are gas pools. The **Garfield** pool was abandoned early in the year but revived later with a 25-barrel per day "Misener" oil well. Pertinent data on these new pools are tabulated in Table 6.

In the **Evers** pool, the Iron Drilling Company No. 4 Prosser "B" well opened a new Pennsylvanian basal conglomerate producing zone when an initial potential of 318 barrels of oil per day was assigned the well (Table 7).

The **Benson South** and **Benson Southeast,** Lansing-Kansas City pools, were combined with the **Benson** pool during the year. Six oil wells, three gas wells, and five dry holes were added to the **Benson** pool.

The **Larned** Arbuckle pool added 43 new oil wells, 16 dry holes, and 1 salt-water disposal well during the year, while accounting for about one-third of the county's total annual oil production.

Of the 28 dry wildcat tests only 6 reported shows of oil or gas, although considerable testing was done in most of the holes. Significant information concerning the locations and tops of important marker horizons are reported in Table 42.

TABLE 42.—*Dry wildcat tests drilled in Pawnee County during 1953*

Company and farm	Location	Surface elevation, feet	Depth to top of Lans.-K.C., feet	Depth to top of Arbuckle, feet	Total depth, feet
'Imperial Petro. Co., Inc. No. 1 Fox	SW¼ SE¼ SE¼ 29-20-16W	2,031	3,482	3,787	3,837
Isern Drlg. Co. No. 1 Bailey	NE¼ NE¼ NE¼ 17-20-18W	2,205	3,645	4,091	4,123
'Musgrove Petro. Corp. No. 1 Dechert	NW¼ NW¼ NW¼ 30-20-19W	2,176	3,688	4,540	4,570
'Musgrove Petro. Corp. et al. No. 1 Fox	NE¼ NE¼ NE¼ 36-20-19W	2,122	3,600	4,123	4,158
Vickers Exp. Ltd. No. 1 Bowman "B"	NE¼ NE¼ NW¼ 10-21-15W	1,937	3,391	3,745	3,773
'Graham-Messman-Rinehart Oil Co. No. 1 Welsh	SW¼ SW¼ NW¼ 11-21-15W	1,939	3,378	3,718	3,793
Vickers Petro. Co., Inc. No. 1 Converse	SW¼ NW¼ NE¼ 14-21-15W	1,949	3,411	3,791	3,845

TABLE 42.—*Dry wildcat tests drilled in Pawnee County during 1953, 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
*Sunray Oil Corp et al. No. 1 De Roo	NE¼ NE¼ NE¼ 17-21-16W	2,002	3,481	3,824	3,87
*Murphy Oil Co. No. 1 Henson	NE¼ NE¼ NW¼ 18-21-16W	2,012	3,505	3,901	3,93
*T. S. Ansel No. 1 Armstrong	NW¼ NW¼ SW¼ 20-21-16W	2,027	3,529	3,970	4,00
M. B. Armer No. 1 Leffert	NE¼ NE¼ NE¼ 30-21-16W	2,019	3,510	3,856	3,89
*Imperial Drlg. Co., Inc. No. 1 Thomas	NW¼ NW¼ NW¼ 30-21-16W	2,027	3,506	3,929	3,94
*Isern Drlg. Co. et al. No. 1 Cook	NE¼ NE¼ SW¼ 31-21-16W	2,058	3,553	3,943	3,99
Cities Service Oil Co. No. 1 Davidson	C SE¼ SE¼ NE¼ 23-21-17W	2,050	3,543	3,902	3,95
Musgrove Petro. Corp. No. 1 Lucas	NE¼ NE¼ NE¼ 13-21-18W	2,100	3,545	4,027§§	4,05
*Musgrove Petro. Corp. No. 1 Caston	NE¼ NE¼ NW¼ 26-21-18W	2,062	3,560	3,979	4,05
Thos. H. Allan No. 1 Mac Donnell	NW¼ NW¼ SE¼ 1-22-15W	1,966	3,478	3,890	3,93
*Welch & Olsson Oil Co. No. 1 Ashworth	NW¼ NW¼ SE¼ 8-22-15W	1,991	3,526	3,966	3,99
*Natl. Coop. Ref. Assn. No. 1 Arnold	SE¼ SE¼ SW¼ 9-22-15W	1,994	3,544	3,998	4,07
Stanolind Oil & Gas Co. No. 1 Stolz	NE¼ NE¼ NW¼ 12-22-15W	1,965	3,476	3,890	3,94
*Musgrove Petro. Corp. No. 1 Jones "C"	NW¼ NW¼ SW¼ 18-22-15W	2,001	3,557	3,990	4,01
*I. W. Siegel No. 1 Bordewick	NW¼ NW¼ SW¼ 8-22-16W	2,015	3,539	3,889	3,91
*Graham-Messman-Rinehart Oil Co. No. 1 Schartz	SW¼ SW¼ NE¼ 15-22-16W	2,047	3,637	4,080	4,11
Musgrove Petro. Corp. No. 1 Schartz	NW¼ NW¼ NW¼ 23-22-16W	2,031	3,631	4,143	4,16
M. B. Armer No. 1 Smith	NW¼ NE¼ NE¼ 21-22-20W	2,226	3,905	4,645§	4,75
*Pickrell Drlg. Co. No. 1 Curtis	SE¼ SW¼ NW¼ 6-23-15W	2,021	3,614	4,125	4,16
Tom-A-Hawk Petro. Co. No. 1 Schartz	NW¼ NW¼ NE¼ 8-23-16W	2,064	3,721	4,210	4,29
*Vickers Exp. Ltd. No. 1 Hogan	NW¼ NW¼ NW¼ 23-23-18W	2,091	4,303	4,467§	4,50

* 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 granite wash, feet.
§ Depth to the top of the Viola, feet.

Locations of most of Pawnee County's producing areas and dry wildcat tests are shown on Figure 11. Oil production data are given in Table 56, and gas production in Table 57.

PHILLIPS COUNTY

(Map Fig. 6)

The 1953 production from 15 pools: oil 2,162,656 barrels. Wells drilled during 1953: oil 5, dry 10, salt-water disposal 1, total 16, including 5 dry wildcats.

Developments during 1953.—Oil production declined almost 20 percent from the previous year, and less than one-third as many tests were made in the county during the year.

Routine drilling in old pools resulted in two new oil wells in the **Huffstutter** pool and one in the **Slinker,** all producing from the Lansing-Kansas City. In the **Hansen** pool, one new Arbuckle well was added and one Arbuckle well was also added to the **Ray** pool.

The Murfin Drilling Company No. 1 Armstrong dry wildcat test in sec. 35, T. 4 S., R. 18 W. reported a show of oil in the Lansing-Kansas City. The five dry wildcat Arbuckle tests are described in Table 43.

Locations of producing areas and dry wildcat tests are shown on Figure 6. Oil production data are given in Table 56.

TABLE 43.—*Dry wildcat tests drilled in Phillips County during 1953*

Company and farm	Location	Depth to top of Topeka, feet	Depth to top of Lans.-K.C., feet	Depth to top of Arbuckle, feet	Total depth, feet
*W. J. Coppinger et al. No. 1 Hartzog	NE¼ NE¼ NW¼ 34-1-19W	3,021	3,384	3,744	3,795
Geo. P. Vye. No. 1 Johnson	NW¼ NW¼ NW¼ 34-4-17W	2,764	3,023	3,572	3,600
*Murfin Drlg. Co. No. 1 Armstrong	E2 NE¼ SE¼ 35-4-18W	2,818	3,057	3,441	3,457
D. G. Hansen No. 1 Baldwin	NW¼ NW¼ NW¼ 26-4-20W	.....	3,188	3,495	3,530
*Isern Drlg. Co. No. 1 Hill	SE¼ SE¼ SE¼ 31-5-19W	3,075	3,278	3,531	3,560

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

PRATT COUNTY

(Map Fig. 15)

The 1953 production from 26 pools: oil 2,714,109 barrels, including production from 1 secondary recovery project, gas 2,323,599 thousand cubic feet. Wells drilled during 1953: oil 73, gas 1, dry 57, total 131 including 19 dry wildcats. New pools discovered 8, combined 2.

Developments during 1953.—Forty more wells were drilled in Pratt County during 1953 than in 1952, and eight new oil pools were discovered. In spite of this, the oil production from the county declined about 7 percent from the 1952 figure; gas production declined modestly also.

The eight new Pratt County pools are the **Fitzsimmons, Frisbie East, Gereke, Hertlein, Iuka-Carmi Northwest, Iuka-Carmi South, Lion,** and **Moore Southwest.** Of the newly discovered pools, perhaps the most important is the **Moore Southwest,** where a total of eight new oil wells were drilled while only three dry holes were reported. The pool was discovered by the Champlin Refining Company in their first test on the Henderson property in sec. 11, T. 26 S., R. 14 W. The Simpson sand between 4,364 to 4,366 feet was named the producing zone and assigned an initial potential of 28 barrels of oil per day. Offset drilling by the same company resulted in the naming of two other producing zones, the Lansing-Kansas City and Kinderhookian rocks, in the pool.

The Viola was named a new producing zone in the **Iuka-Carmi Northwest** pool, the Lansing-Kansas City in the **Iuka-Carmi South** pool (now part of the **Iuka-Carmi** pool), and the Viola in the **Moore** pool (Table 7).

The **Iuka-Carmi South** pool was combined with **Iuka-Carmi** and **Frisbie East** with **Frisbie Northeast.** During the year, the **Frisbie Northeast** pool had five oil, one gas, and four dry holes drilled.

The largest number of extension wells were drilled in the **Iuka-Carmi** pool, where 46 new oil wells and 9 dry holes were completed. Also 5 old holes were reworked in the pool and made into oil producers, 1 into a gas producer, and only 1 such attempt was unsuccessful.

Ten of the 19 dry wildcat tests reported shows of oil or gas. Important data on the depths of the marker horizons encountered in drilling these unsuccessful holes are given in Table 44.

Pertinent information on the Pratt County pools discovered in 1953 is given in Table 6. Locations of producing areas and dry wildcat tests are shown on Figure 15. Oil and gas production data from the county's 26 producing pools are given in Tables 56 and

TABLE 44.—*Dry wildcat tests drilled in Pratt County during 1953*

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
Vickers Exp. Ltd. No. 1 Jeffers-Walker	NW¼ NW¼ SE¼ 13-26-11W	3,564	4,254	4,337	4,416	4,464
*Morrison Drlg. Co., Inc. No. 1 Hartman	SE¼ SW¼ NE¼ 21-26-11W	3,635	4,300	4,392	4,474	4,520
The Palmer Oil Corp. No. 1 Allen	SE¼ NE¼ NE¼ 31-26-11W	3,620	4,267	4,358	4,448	4,500
*Lion Oil Co. et al. No. 1 Holland "B"	NE¼ SE¼ NW¼ 5-26-12W	3,645	4,143	4,204	4,298	4,328
Helmerich & Payne, Inc. No. 1 McKibbin	NE¼ NE¼ NE¼ 17-26-12W	3,684	4,190	4,261	4,361	4,412
*M. B. Armer No. 1 Elliott	SE¼ SE¼ NE¼ 6-26-14W	3,791	4,302	4,367	4,425	4,517
Tatlock Oil Co. No. 1 B. W. Curtis	SE¼ SE¼ NE¼ 21-26-15W	3,940	4,505	4,633	4,692	4,736
*Amerada Petro. Corp. No. 1 J. E. Whitman	SW¼ SE¼ NW¼ 11-27-12W	3,718	4,350	4,453	4,538	4,636
Republic Nat. Gas Co. No. 1 Maas	SE¼ SE¼ SW¼ 21-27-12W	3,688	4,274	4,350	4,489	4,540
Lion Oil Co. et al. No. 2 Airport	SW¼ NW¼ NW¼ 8-27-13W	3,844	4,363	4,406	4,512	4,545
Musgrove Petro. Corp. No. 1 Reed	NE¼ NE¼ NW¼ 27-27-14W	3,919	4,462	4,548	4,650	4,674
*The El Dorado Refg. Co. et al. No. 1 Vanatta	NW¼ SE¼ SE¼ 28-27-14W	3,893	4,421	4,530	4,639	4,652
*Graham-Messman-Pinehart Oil Co. No. 1 Smith	SW¼ SW¼ NE¼ 8-28-13W	3,828	4,348	4,410	4,518	4,548
Lohmann-Johnson Drlg. Co., Inc. No. 1 Thompson	SE¼ SE¼ SE¼ 24-28-14W	3,924	4,448	4,548	4,625	4,670
*Flynn Oil Co. No. 1 Thompson	NE¼ NE¼ NW¼ 22-28-15W	4,065	4,572	4,719	4,832	4,875
Musgrove Petro. Corp. No. 1 Mowbroy	SW¼ SW¼ SW¼ 4-29-11W	3,761	4,444	4,534	4,633	4,678
*Herndon Drlg. Co. No. 1 Blair	NW¼ NW¼ SE¼ 3-29-12W	3,830	4,450	4,553	.....	4,572
*Jack Van Zandt et al. No. 1 Peachy	NE¼ NE¼ NE¼ 2-29-13W	3,902	4,517	4,603	4,738	4,763
*Cities Service Oil Co. No. 1 Luther "D"	SE¼ SE¼ SW¼ 15-29-14W	4,015	4,516	4,584	4,682	4,732

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

57. Information on the county's secondary recovery project, which extends into Kingman County, is given in Table 1.

RAWLINS COUNTY

Wildcat wells have been drilled from time to time in Rawlins County, but as yet no oil or gas pool has been found.

Exploration during 1953.—Two attempts were made during 1953 to find production in Rawlins County. The two wildcat tests are located rather close together in the eastern part of the county, not far from the town of Atwood. Both were drilled by the Natural Gas and Oil Corporation. One is on the S. A. Lewis farm in SW¼ NW¼ NE¼ sec. 21, T. 3 S., R. 32 W. From an elevation of 3,018 feet above sea level, the test found the Ft. Hays limestone at 1,280, Greenhorn limestone at 1,595, Dakota sandstone at 1,710, Stone Corral at 2,800, black Heebner shale at 3,936, Lansing limestone at 4,055, Mississippian at 4,582, and Arbuckle dolomite at 4,686 feet depth. There were no shows of oil or gas reported.

In the No. 1 Lewis "A" test, in the SE¼ SE¼ SW¼ sec. 19 from an elevation 3,066 feet above sea level, the Dakota sandstone was found at 1,715, the Stone Corral at 2,823, the Heebner shale at 4,001, the Lansing limestone at 4,051, and Mississippian strata at 4,622 feet depth. The test was abandoned in the Gilmore City limestone at a depth of 4,666 feet, without having had a show of oil or gas.

RENO COUNTY

(Map Fig. 7)

The 1953 production from 17 pools: oil 1,306,839 barrels including production from 2 secondary recovery projects, gas 448,918 thousand cubic feet. Wells drilled during 1953: oil 6, gas 1, dry 32, total 39 including 14 dry wildcats. New pools discovered 1. Pools abandoned 1.

Developments during 1953.—Four less wells were attempted in Reno County in 1953 than in 1952, and the total county oil production decreased about 11 percent. Gas production from the **Lerado** and **Yoder** pools increased the previous year's total about four times.

Exploration in Reno County during 1953 found only one new pool, the **Bacon.** The discovery well was drilled on the Bacon property by the Brunson Drilling Company in sec. 36, T. 23 S., R.

5 W. An initial potential of 178 barrels of oil per day was assigned from Osagian (Mississippian) rocks from depths of 3,382 to 3,410 feet, total depth of the well. An offset test by the same company which penetrated Simpson rocks was abandoned as a dry hole.

During the year three extension oil wells were added to the **Buhler** pool, one to the **Sterling**, and one to the **Nicklaus.** A new Mississippian gas well was added to the **Lerado** pool.

The **Keddie** pool, named in 1952 from a test in sec. 26, T. 23 S., R. 10 W., was abandoned during 1953. No production had been reported from the lease.

TABLE 45.—*Dry wildcat tests drilled in Reno County during 1953*

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
*Penguin Petro., Inc. No. 1 Phillips	NE¼ SW¼ NW¼ 23-22-6W	2,853	3,943	3,968§	4,022
The Texas Co. No. 1 McVay	SW¼ SW¼ NW¼ 21-22-7W	2,957	3,775	3,874	3,948
Trans-Era Petro., Inc. et al. No. 1 Sara	NW¼ NW¼ SW¼ 3-22-9W	3,025	3,662	3,774	3,790
Dozier Oil Co. No. 1 Newell	SE¼ SE¼ SW¼ 8-22-10W	3,149	3,515	3,598	3,635
Musgrove Petro. Corp. et al. No. 1 Miller	NE¼ NE¼ SW¼ 30-22-10W	3,198	3,549	3,652	3,691
The Texas Co. No. 1 Huldah Koenig	NE¼ SW¼ SE¼ 32-22-10W	3,219	3,597	3,697	3,745
*Virginia Drlg. Co., Inc. No. 1 Fredrick	SW¼ SW¼ SW¼ 8-23-4W	2,765	3,972	4,084	4,120
*Brooks-Pierce No. 1 Swanson	SE¼ SE¼ SW¼ 22-23-5W	2,706	3,848	3,953	3,985
Schermerhorn Oil Corp. No. 1 Taylor-Ferguson	SE¼ NW¼ NW¼ 36-23-10W	3,284	3,820	3,999	4,014
*The Derby Oil Co. No. 1 Blocker	SE¼ NE¼ NE¼ 18-25-4W	2,781	.....	3,590**	3,663
Mid Plains Oil Corp. et al. No. 1 Hayes	SW¼ SW¼ SW¼ 24-25-10W	3,420	4,144	4,332	4,362
*Morris-Mizel No. 1 Blocker	NE¼ NE¼ SE¼ 23-26-5W	2,856	4,002	4,129	4,155
Barnett Drlg., Inc. No. 1 Siebert "C"	NW¼ NE¼ NW¼ 7-26-6W	3,028	4,038	4,156	4,215
*Saturn Drlg. Inc. No. 1 Hodgins	NE¼ NW¼ NE¼ 4-26-10W	3,463	4,190	4,351	4,370

* 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 Simpson, feet.

** Depth to the top of the Mississippian, feet.

Only four of the 14 dry wildcat tests reported shows of oil or gas. Pertinent data concerning the depths at which marker horizons were encountered are given in Table 45.

The new pool is listed in Table 6. Producing areas and dry wildcat tests are shown on Figure 7. Oil production data are given in Table 56, and gas production in Table 57. Data on the secondary recovery projects are given in Table 1.

RICE COUNTY

(Map Fig. 7)

The 1953 production from 53 pools: oil 8,477,552 barrels, gas 377,030 thousand cubic feet. Wells drilled during 1953: oil 102, gas 1, dry 84, salt-water disposal 2, total 189 including 6 dry wildcats. New pools discovered 5, revived 1. Pools combined 8, abandoned 1. Secondary recovery projects 1.

Developments during 1953.—Although the total county oil production was down 11 percent and drilling decreased markedly, five new oil pools were discovered and one oil pool was revived in Rice County during 1953.

The new oil pools are the **Bell, Crawford, Green, Munyon East,** and **Staatz.** The **Bell** and **Munyon East** pools produce from the Arbuckle dolomite, the **Crawford** and **Staatz** from the Pennsylvanian basal conglomerate, and the **Green** pool produces from Mississippian strata. The **Sterling** pool was officially revived this year by the No. 1 Mayer well drilled by Thos. H. Allan in sec. 4, T. 22 S., R. 8 W. The State Geological Survey of Kansas has carried production from the section in previous bulletins under the same pool name.

There were many pool consolidations during the year. The **Welch East** and the **Welch West** pools were combined with the **Welch,** which in turn along with the **Bornholdt** and **Smyres** pools was combined and is now called the **Welch-Bornholdt** pool. The **Zinc** and **Gemeinhardt** were combined with the **Roesler** pool. The **Edwards** pool of Ellsworth and Rice Counties was combined with the **Geneseo** pool and is now known as the **Geneseo-Edwards** pool. The **Schulz** pool, which was named in 1952 but which had had no production, was abandoned during the year.

Routine drilling added 21 extension oil wells to the newly combined **Geneseo-Edwards** pool, 25 to the **Welch-Bornholdt,** 12 to the **Chase-Silica,** and 8 to the **Raymond** pool. Reworking of

TABLE 46.—*Dry wildcat tests drilled in Rice County during 1953*

Company and farm	Location	Depth to top of Lans.-K.C., feet	Depth to top of Penn. Basal Cong., feet	Depth to top of Arbuckle, feet	Total depth, feet
*Trans-Era Petro., Inc. No. 1 Fuller	NW¼ SW¼ SE¼ 23-18-7W	2,765	3,209	.....	3,245
E. H. Riggs No. 1 Sellers	NE¼ NE¼ NE¼ 25-18-7W	2,720	3,205	3,490	3,515
*John Lindas Oil, Inc. No. 1 Farmer	NE¼ NE¼ SE¼ 25-20-10W	2,989	.....	3,352	3,370
Hinkle Oil Co. et al. No. 1 Loesch	SE¼ SE¼ SW¼ 26-20-10W	2,990	3,280	3,352	3,379
*W. L. Hartman et al. No. 1 Loesch	SE¼ SE¼ SW¼ 18-21-10W	3,048	3,343	3,437	3,501
*Braden Drlg. Co. No. 1 Proffitt	NW¼ NW¼ NW¼ 29-21-10W	3,064	3,360	3,465	3,492

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

old holes brought in 5 oil wells, 6 gas wells, and only 2 dry holes. One old well worked over was the discovery well of the **Munyon East** pool.

All but one of the six dry wildcat tests drilled during the year were taken into the Arbuckle dolomite. Only two of the six reported shows of oil or gas. Tabulated data on the important marker horizons and depths penetrated are given in Table 46.

Data on the Atlantic Refining Company secondary recovery projects in the **Wherry** field is given in Table 1.

The new pools are given in Table 6. Locations of Rice County producing areas and dry wildcat tests are given on Figure 7. Oil production is listed by pools in Table 56, and gas production in Table 57.

RILEY COUNTY

(Map Pl. 1)

Test wells have been drilled in Riley County from time to time, but no commercial production of oil or gas has been reported. Before 1953, 17 tests had been reported.

Exploration during 1953.—Two dry wells were drilled in Riley County in 1953. Both are a short distance east of the **Wakefield Northeast** field in Clay County. The Salina Drilling Company No. 1 Lewellen well in the NE¼ NE¼ NE¼ sec. 11, T. 9 S., R. 4 E. was abandoned at a total depth of 2,815 feet. Pre-Cambrian granite was logged at 2,813 feet. Tops reported are as follows:

Kansas City, 1,604; Mississippian, 1,901; "Hunton," 2,082; Viola, 2,550; and Simpson, 2,706 feet. The Federal Royalty Company No. 1 Gordon well, NE¼ NE¼ NW¼ sec. 13, T. 9 S., R. 4 E., was abandoned in the Viola limestone at a total depth of 2,684 feet. Mississippian limestone was logged at 1,910 feet, Kinderhookian at 1,942 feet, "Hunton" at 2,104 feet, and Viola at 2,550 feet.

Locations of the two wells drilled in Riley County in 1953 are shown on Plate 1.

ROOKS COUNTY

(Map Fig. 6)

The 1953 production from 89 pools: oil 7,016,581 barrels. Wells drilled during 1953: oil 121, dry 138, salt-water disposal 6, total 265 including 14 dry wildcats. New pools discovered 14. Pools combined 5, abandoned 2.

Developments during 1953.—Although the total county oil production and the number of wells drilled decreased slightly from the 1952 high, 14 new oil pools were discovered in the continued exploratory activity in Rooks County during 1953.

The following new pool discoveries produce from Arbuckle dolomite: **Allphin, Berland East, Berland Southeast, Brungardt Northwest, Lynd Southeast, Northampton Southeast, Paradise Creek West,** and **Williams.** New Lansing-Kansas City pools are: **Colby, Kruse Northwest, Williams Northwest,** and **Williams Southeast.** The Toronto was named as the producing horizon in the new **Dorr South** pool, and the Pennsylvanian basal conglomerate in the **Ganoung** pool. The Lansing-Kansas City and Simpson rocks were named new producing zones by the Nomenclature Committee in the **Williams** pool. In the new **Ganoung** pool, the Lansing-Kansas City strata was added later as a new producing zone. Other new producing zones in old fields are: **Bassett Southwest,** Lansing-Kansas City (now part of the **Laura Southeast** field); **Baumgarten,** Lansing-Kansas City; **Brungardt,** Pennsylvanian basal conglomerate and Arbuckle; **Dopita East,** Arbuckle; **Mt. Ayr,** Pennsylvanian basal conglomerate; and **Vohs Northwest,** Arbuckle.

Several of the six new wells in the **Williams** pool were completed as dual completions. Three horizons now produce in the field, the Lansing-Kansas City, Simpson, and Arbuckle.

During the year the **Baumgarten Northeast** pool was combined with the **Baumgarten** pool, **Erway** with **Kruse, Bassett Southwest** with **Laura Southeast, Lynd Southeast** with **Lynd,** and **Marcotte Northwest** with the **Marcotte.** The **Bartos** and **McMullen** pools, named in 1952, were abandoned this year. Neither pool had reported production.

Some of the fields adding a notable number of extension wells during the year are: **Baumgarten,** 12 oil wells; **Brungardt,** 9 oil wells; **Elm Creek,** 10 oil wells; **Laura Southeast,** 6 oil wells; **Marcotte,** 12 oil wells; and **Northampton,** 10 oil wells. Four of five old wells worked over during the year found additional oil.

TABLE 47.—*Dry wildcat tests drilled in Rooks County during 1953*

Company and farm	Location	Depth to top of Lans.-K.C., feet	Depth to top of Arbuckle, feet	Total depth, feet
*Long Brothers No. 1 Shaw	NE¼ NE¼ NW¼ 10-6-19W	3,285	3,580	3,596
*Earl R. Cave No. 1 Brobst	SW¼ NW¼ NE¼ 18-6-19W	3,349	3,605§§	3,613
*Petroleum, Inc. No. 1 Cordill "A"	SE¼ SE¼ NW¼ 20-7-16W	2,873	3,234	3,270
*Trans-Era Petro., Inc. No. 1 Oliva	NE¼ NE¼ SW¼ 4-7-17W	2,961	3,290	3,320
Salina Drlg. Corp., Inc. No. 1 Ray Kollman	SW¼ SW¼ NW¼ 17-7-18W	3,163	3,461	3,566
Gulf Oil Corp. No. 1 Zillinger	SW¼ NW¼ NE¼ 31-7-18W	3,026	3,301	3,410
John Lindas Oil, Inc. No. 1 Maddy	NE¼ NW¼ SW¼ 36-7-18W	3,074	3,358	3,402
Trans-Era Petro., Inc. No. 1 Swaney	NW¼ NW¼ NW¼ 4-8-18W	3,091	3,429	3,468
E. H. Riggs No. 1 Collins	NW¼ NW¼ SW¼ 6-8-18W	3,157	3,491	3,520
*Walters Drlg. Co. No. 1 Hennasay	NE¼ NE¼ NE¼ 26-9-18W	3,362	3,703	3,728
Lee Phillips Oil Co. No. 1 Fregeau	NW¼ NW¼ NE¼ 7-9-19W	3,301	3,568	3,599
Trans-Era Petro., Inc. No. 1 Anderson	SW¼ SW¼ SE¼ 1-9-20W	3,345	3,612	3,662
Musgrove Petro. Corp. No. 1 Baldwin "B"	NE¼ NE¼ NW¼ 11-9-20W	3,354	3,617	3,637
Braden Drlg. Co. et al. No. 1 Chesney	NW¼ NW¼ SE¼ 29-10-16W	3,304	3,641"	3,713

* 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 granite wash, feet.
" Depth to the top of the Pennsylvanian basal conglomerate, feet.

During 1953, the **Marcotte** pool produced more than 1.8 million barrels of oil. Other pools in Rooks County with production more than one-quarter of a million barrels last year are: **Barry, Gra-Rook, Jelinek, Northampton, Palco,** and **Paradise Creek.**

Of the 14 dry wildcat tests, only six reported shows of oil or gas. Pertinent data on the locations and tops encountered in drilling these wildcat tests are given in Table 47.

Significant data on the newly discovered Rooks County pools are tabulated in Table 6. The new producing zones in old fields are listed in Table 7. Locations of producing areas and dry wildcat tests are shown on Figure 6. Oil production data are given in Table 56.

RUSH COUNTY

(Map Fig. 8)

The 1953 production from 8 pools: oil 268,300 barrels, gas 1,353,835 thousand cubic feet (estimated). Wells drilled during 1953: oil 12, gas 2, dry 33, total 47 including 20 dry wildcats. New pools discovered 2. Pools abandoned 2.

Developments during 1953.—Production from Rush County maintained the same level during 1953 as the previous year, but there were 19 more wells drilled. Two pools were officially named during the year, the **Chilly Knob** and **Reichel** and two pools were abandoned during the year, the **Big Timber** and **Stegman.** Small amounts of production had been reported from the latter two pools before abandonment.

The **Chilly Knob** pool discovery well was drilled by the Barbara Oil Company on the Schraeder lease in sec. 18, T. 19 S., R. 17 W. The discovery well was named an Arbuckle producer from depths of 3,928 to 3,951 feet; however, the test was carried as dry and abandoned by the scout reports and no production was reported from the lease during the year. An initial potential of 29 million cubic feet of gas per day was assigned the Lansing-Kansas City strata from depths of 3,393 to 3,429 feet in the newly discovered **Reichel** pool. The Morrison Drilling Company drilled the discovery well on the Reichel farm in sec. 23, T. 17 S., R. 17 W. An offset well to the **Reichel** discovery, the No. 1 Thielenhaus, found a smaller amount of gas in the Lansing- Kansas City and according to the scout reports was made into a gas producer from

TABLE 48.—*Dry wildcat tests drilled in Rush County during 1953*

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
The El Dorado Refg. Co. No. 1 Pospishel	SE¼ SE¼ SE¼ 2-16-16W	1,027	3,235	3,558	3,585
*Bennett & Roberts Drlg. Co. No. 1 Legleiter	NE¼ NE¼ SE¼ 30-16-18W	1,175	3,302	3,583"	3,649
*Shelley-Miller Drlg., Inc. No. 1 Werth	NE¼ NE¼ NE¼ 1-16-19W	.....	3,293	3,599	3,610
Anschutz Drlg. Co. No. 1 Krug	SW¼ SW¼ SW¼ 1-17-16W	1,130	3,336	3,621	3,642
Graham- Messman-Rinehart Oil Co. No. 1 Bardell	NE¼ NE¼ NE¼ 18-17-16W	1,186	3,373	3,644	3,775
Northern Pump Co. No. 1 Schlegel	SE¼ SW¼ SW¼ 24-17-16W	1,120	3,348	3,647	3,695
*Northern Pump Co. No. 1 Jessop	NE¼ NE¼ NE¼ 28-17-16W	.....	3,366	3,695	3,725
The Palmer Oil Corp. No. 1 Lippert	SW¼ SW¼ NW¼ 5-17-17W	1,201	3,379	3,645§§	3,666
Morrison Drlg. Co., Inc. No. 1 Legge	NE¼ NE¼ SE¼ 21-17-19W	1,431	3,626	4,000	4,067
*Morrison Drlg. Co., Inc. No. 1 Albers	NE¼ NE¼ NE¼ 28-17-19W	1,385	3,571	3,960	4,030
*Victor Drlg., Inc. No. 1 S. Crotinger	SW¼ SW¼ NE¼ 12-18-17W	.....	3,243	3,496"	3,558
Gabbert-Jones Drlg. Co. No. 1 Ficken	SW¼ SW¼ SW¼ 1-18-18W	1,210	3,474	3,875	3,908
Toklan Production Co. No. 1 Felder	SE¼ SE¼ NE¼ 30-18-19W	1,320	3,611	4,165	4,207
Bennett & Roberts No. 1 Bott	SW¼ SW¼ NE¼ 11-18-20W	1,312	3,557	4,170	4,230
Mid Plains Oil Corp et al. No. 1 C. Brazda	SW¼ SW¼ NW¼ 30-19-16W	1,126	3,470	3,828	3,858
*Mid Plains Oil Corp. et al No. 1 A. E. Brazda	SW¼ SW¼ SW¼ 13-19-17W	1,208	3,527	3,882	3,924
*A & A Oil Co. No. 1 Button	NW¼ NE¼ NW¼ 32-19-18W	1,322	3,663	4,074	4,095
Musgrove Petro. Corp. No. 1 Shiney	NE¼ NE¼ NE¼ 12-19-19W	1,208	3,505	3,875	4,008
*Morrison Drlg. Co., Inc. No. 1 Eilts	NW¼ NW¼ SE¼ 24-19-19W	1,323	3,650	4,160	4,184
*Carl Todd Drlg. Co. No. 1 Seltman	SE¼ SE¼ SE¼ 28-19-19W	1,420	3,728	4,204	4,284

* 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 Pennsylvanian basal conglomerate, feet.
§§ Depth to the top of the granite wash, feet.

the Topeka limestone. Both gas wells were drilled into Pre-Cambrian granite before being plugged back to the producing zones.

Considerable development took place in the **Rush Center** pool, where eight Arbuckle oil wells and four dry holes were completed during the year. Two oil wells were added to the **Otis-Albert** pool.

Five of the 20 dry wildcats reported shows of oil or gas. Tabulated data on the depths to the marker horizons penetrated in these important tests are given in Table 48. The new pools are described in Table 6. Oil production is given in Table 56, and gas production in Table 57. Locations of producing areas and dry wildcat tests are given in Figure 8.

RUSSELL COUNTY

(Map Fig. 9)

The 1953 production from 31 pools: oil 12,583,124 barrels including production from 2 secondary recovery projects. Wells drilled during 1953: oil 198, gas 1, dry 98, salt-water disposal 11, total 308 including 10 dry wildcats. New pools discovered 2, combined 1.

Developments during 1953.—Although drilling dropped off slightly from the previous year, the State's second largest oil producing county was able to increase its total annual oil production about 8 percent.

The two new oil pools discovered during the year are the **Fossil Creek** and **Heim.** The **Fossil Creek** pool was discovered by the Murfin Drilling Company No. 1 Boxberger well in sec. 11, T. 14 S., R. 14 W. Production of 30 barrels of oil per day was assigned the Langdon shale (usually considered as part of the producing Tarkio) from depths of 2,341 to 2,347 feet. The **Heim** pool was brought in by the Shelly-Miller Drilling Company on the Heim property in sec. 21, T. 14 S., R. 12 W. An initial potential of 25 barrels of oil per day from the Pennsylvanian basal conglomerate at depths of 3,189 to 3,200 feet was assigned.

The main stimulant to the continued drilling activity in Russell County, as last year, was the fine recovery from sands near the Tarkio limestone. More than half the new oil wells drilled in the county were from one of the six sands usually called Tarkio. The name Indian Cave is no longer being applied to the producing zones as it is not now believed to be correlative with outcrops in eastern Kansas. The six known sands correspond in stratigraphic

position to the Dry, Langdon, and Willard shales, both above and below the Tarkio limestone.

The single reported gas well was completed in the **Hall-Gurney** field in sec. 8, T. 15 S., R. 13 W. Small gas production was reported in the Lansing-Kansas City rocks.

Twenty old wells were worked over during the year. Of these 17 brought in oil wells, only 1 was reported dry, but 2 were made into salt-water disposal wells.

Four of the 10 dry wildcat tests reported shows of oil. The Borrell and Miller test on the Heine ranch in the S½ SE¼ SE¼ sec. 32, T. 12 S., R. 11 W. reported no shows of oil, but the scout report noted that the Viola was penetrated at a depth of 3,256 feet, and the Simpson at a depth of 3,510 feet. The reported elevation above sea level was given as 1,532 feet. Important data on the other dry wildcat tests are given in Table 49.

Locations of producing areas and dry wildcat tests are shown on Figure 9. Oil production by pools is given in Table 56. Informa-

TABLE 49.—*Dry wildcat tests drilled in Russell County during 1953*

Company and farm	Location	Depth to top of Lans.-K.C., feet	Depth to top of Arbuckle, feet	Total depth, feet
*Borrel & Miller No. 1 Heine Ranch	S/2 SE SE 32-12-11W	2,750	3,510	3,540
Anschutz Drlg. Co. No. 1 Roda	SE¼ SE¼ SE¼ 7-12-14W	2,868	3,190	3,245
Gough Davis et al. No. 1 Fink	SW¼ SE¼ SE¼ 8-12-14W	2,941	3,290	3,369
Ash-Mar Drlg. Co. et al. No. 1 Schmeidler	NE¼ NE¼ SW¼ 22-12-15W	2,973	3,250	3,277
*Stearns Drlg. Co. No. 1 Woelk	SE¼ SE¼ SE¼ 20-13-13W	2,966	3,341	3,425
*Braden Drlg. Co. et al. No. 1 Shaffer Seeley Ranch	SW¼ SW¼ NE¼ 11-13-15W	3,001	3,268	3,335
Advance Drlg. Co. No. 1 Anschutz	NE¼ NE¼ NE¼ 14-14-12W	.....	2,232¶¶	2,290
*Graham-Messman-Rinehart Oil Co. No. 1 Kunz	SW¼ SW¼ SW¼ 19-14-15W	3,101	3,362	3,389
Natl. Assoc. Petro. Co. No. 1 Bosch	NE¼ NE¼ SW¼ 30-14-15W	3,045	3,314	3,562
Isern Drlg. Co. No. 1 Bosch	SE¼ SE¼ NW¼ 8-15-15W	3,096	3,368	3,392

* 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 Tarkio, feet

tion on the two new pools is given in Table 6. Data on the secondary recovery projects begun in 1952 are given in Table 1.

SALINE COUNTY

(Map Fig. 7)

The 1953 production from 11 pools: oil 1,517,070 barrels. Wells drilled during 1953: oil 73, dry 28, salt-water disposal 1, total 102 including 8 dry wildcats. New pools discovered 3. Pools combined 7.

Developments during 1953.—The oil production from Saline County was up approximately one-half million barrels from the previous year's figure, mostly because of the outstanding development of the **Salemsborg** pool. The three new pools, the **Salemsborg North, Salemsborg Northeast,** and **Salemsborg South,** were brought in on the north-south trend of the **Salemsborg** pool and later in the year were combined with that pool. Other older pools in the trend of Maquoketa-Viola production combined with the **Salemsborg** during the year were **Holm, Holm North,** and **Holm Northeast.**

In the southeastern township of the county, the **Gypsum Creek North** pool was combined with the **Gypsum Creek** pool of McPherson County. The pool now extends across the county line. During the year 10 extension oil wells were completed in the pool.

Routine drilling in some of the older pools resulted in the addition of 19 oil wells to the **Smolan** pool and two in the **Hunter.** By far the largest number of new wells were completed in the **Salemsborg** pool, a total of 41.

The E. K. Carey No. 1 Stein salt-water disposal well in sec. 33, T. 16 S., R. 1 W. reported more than 300 feet of Arbuckle strata, penetrating the top of the group at 3,328 feet, and drilling to a total depth of 3,669 feet.

Only one of the eight dry wildcat tests reported shows of oil. The National Associated Petroleum Company has not as yet released the tops on their test on the Pistora property in the SE¼ NW¼ SW¼ sec. 22, T. 13 S., R. 5 W. It is known that the total depth of the test was 3,952 feet. Significant data on the tops of the other dry wildcat tests are given in Table 50.

Oil production is given in Table 56. Locations of producing areas and dry wildcat tests are shown on Figure 7. The new pools are described in Table 6.

TABLE 50.—*Dry wildcat tests drilled in Saline County during 1953*

Company and farm	Location	Depth to top of Lans.-K.C., feet	Depth to top of Mississippian, feet	Depth to top of Arbuckle, feet	Total depth, feet
Natl. Assoc. Petro. Co. No. 1 Pistora	SE¼ NW¼ SW¼ 22-13-5W	.....	.....	.....	3,952
*Mallard Drlg. Co. et al. No. 1 Hanson	NE¼ NW¼ NE¼ 2-14-1W	1,806	2,471	.....	2,524
*Lewis Kistisis No. 1 Phelps	S/2 SE¼ SW¼ 4-15-4W	2,415	3,067	3,567‡‡	3,670
*Beardmore Drlg. Co. et al. No. 1 Cooley	NE¼ NE¼ SW¼ 15-16-1W	1,974	2,653	.....	2,675
*T. A. Phillips No. 1 Carlson	NE¼ NE¼ SW¼ 28-16-2W	2,195	2,853	3,428§	3,451
*Franco Central Oil Co. et al. No. 1 Anna Malmgren "A"	NE¼ SE¼ NE¼ 22-16-4W	2,364	3,038	3,560§	3,600
E. K. Carey Drlg. Co., Inc. et al. No. 1 Logerstrom	SW¼ SW¼ NE¼ 33-16-4W	2,462	3,175	3,819	3,834
Republic Natural Gas Co. et al. No. 1 Hawkins	SE¼ SE¼ SE¼ 25-16-5W	2,583	3,242	3,909	3,966

* 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 Maquoketa, feet.

§ Depth to the top of the Viola, feet.

SCOTT COUNTY

(Map Pl. 2)

The 1953 production from 2 pools: oil 63,635 barrels, gas none reported. Wells drilled in 1953: total 3 (all dry) including 2 dry wildcats.

Developments during 1953.—No new wells were added in the two oil pools of Scott County. One dry hole, drilled near the **Keystone** pool to a depth of 5,106 feet, tested all zones that might possibly produce oil or gas, including the Arbuckle dolomite. A show of oil was found between 4,110 and 4,132 feet in the Lansing-Kansas City sequence. Drill-stem tests at other levels recovered only salt water.

One of the wildcats was drilled by the Continental Oil Company on the A. R. Thon farm in the NW¼ NW¼ NW¼ sec. 26, T. 16 S., R. 31 W. Drilling from 2,914 feet above sea level, the Lansing limestone was found at 3,871 feet; the top of Mississippian strata at 4,646 feet; and the hole was abandoned at 4,832, still in Mississippian rocks. No shows of oil or gas were reported.

The Hugoton Production Company drilled a test hole on the Dirks farm in the NW¼ NE¼ NW¼ sec. 28, T. 16 S., R. 33 W. In this hole, drilled from 3,077 feet above sea level, the Lansing was encountered at 4,025 feet and the top of the Mississippian at 4,743 feet. The hole was abandoned in Mississippian rocks at a total depth of 5,202 feet. A show of gas was reported from 4,505 to 4,576 feet depth.

Locations of producing areas are shown on Plate 2. Oil production is given in Table 56; the county's cumulative gas production is given in Table 57.

SEDGWICK COUNTY

(Map Fig. 13)

The 1953 production from 31 pools: oil 1,073,578 barrels including production from 2 secondary recovery projects, gas 558,751 thousand cubic feet. Wells drilled during 1953: oil 17, dry 22, salt-water disposal 1, total 40 including 12 dry wildcats. New pools discovered 1.

Developments during 1953—Although drilling activity and production in Sedgwick County were not as high as the previous year, the outstanding development was the expansion of the **Kuske North** pool. During 1953, 14 new "Burgess sand" wells were added to the pool.

The county's new pool for the year, the **Cottage**, was completed by the Carlock Oil Company on the Nickles lease in the SW¼ SW¼ SE¼ sec. 19, T. 25 S., R. 2 E. This "Burgess sand" discovery well was given a minimum daily potential.

Three of the 12 dry wildcats reported shows of oil. Significant data revealed from the drilling of these important dry tests are given in Table 51. Locations of producing areas and dry wildcat tests are shown on Figure 13. A description of the new pool is given in Table 6. Data on the secondary recovery project within the county are listed in Table 1. Oil production by pools is given in Table 56, and gas production in Table 57.

SEWARD COUNTY

(Map Pl. 2)

The 1953 production from 10 pools: oil 49,794 barrels, gas 26,997,298 thousand cubic feet. Wells drilled during 1953: oil none, gas 26, dry 7, total 33 including 3 dry wildcats. New pools discovered 3. Pools combined 1.

TABLE 51.—*Dry wildcat tests drilled in Sedgwick County during 1953*

Company and farm	Location	Depth to top of K.C., feet	Depth to top of Mississippian, feet	Depth to top of Arbuckle, feet	Total depth, feet
*J. P. Gaty No. 1 Schuessler "B"	SE¼ NE¼ NW¼ 6-25-2E	2,548	3,038	.....	3,053
*J. P. Gaty No. 1 Delong	NE¼ NE¼ SE¼ 35-25-2E	2,405	2,834	.....	3,226
*Bankoff Oil Co. No. 1 Jackson Dillon	SE¼ SE¼ SE¼ 21-27-2E	2,494	2,939	3,333	3,362
*J. P. Gaty No. 1 Hurst	E/2 SE¼ NE¼ 4-28-2E	2,502	2,978	.....	3,076
Cities Service Oil Co. No. 1 Moyniham	SE¼ SE¼ NW¼ 23-28-2E	2,501	2,970	3,342	3,361
*Trans-Era Petro., Inc. et al. No. 1 Calloway	SE¼ NW¼ NE¼ 30-29-1E	2,766	3,340	3,838	3,857
Stickle Drlg. Co. No. 1 Farber	NE¼ NE¼ NW¼ 32-29-2E	2,621	3,140	3,566	3,600
Ben F. Brack Oil Co., Inc. et al. No. 1 Helen Siggs	NW¼ SW¼ NE¼ 20-27-2W	2,989	3,583	4,195	4,230
Aylward Drlg. Co. No. 1 Becker	NW¼ NW¼ SE¼ 9-27-4W	2,855	3,681	4,155†	4,196
*Trans-Era Petro., Inc. No. 1 Janzen	NW¼ SE¼ NE¼ 27-28-2W	3,013	3,688	4,155	4,185
*Kewanee Oil Co. No. 1 Roy	SW¼ SW¼ NE¼ 13-29-1W	2,743	3,304	.....	3,355
Earl F. Wakefield No. 1 More	NW¼ NW¼ NW¼ 17-29-3W	3,147	3,761	4,325	4,355

*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 Simpson, feet.

Developments during 1953.—Three new gas pools were discovered in Seward County during 1953. These are the **Blue Bell (Mississippian)**, **Kismet Northwest** (Morrowan), and **Thirty-one (Morrowan)**. **The Blue Bell** was discovered by the Jomilson Producers on the Long property in sec. 33, T. 34 S., R. 31 W. An initial potential of less than half a million cubic feet of gas per day was assigned from Chesteran rocks from depths of 5,959 to 5,965 feet. **The Kismet Northwest** pool was brought in by the Columbian Fuel Corporation on the Rinehart property in sec. 10, T. 33 S., R. 31 W., producing initially 2.3 million cubic feet of gas per day from Morrowan rocks from depths of 5,584 to 5,588 feet. The third discovery of the year was the **Thirty-one** pool completed by Helmerich and Payne, Inc., on the Ellis lease in sec. 18, T. 31 S., R. 31 W., with an initial potential of 4.9 million cubic feet of gas

per day from the Morrowan from depths of 5,448 to 5,460 feet. The discovery wells of the latter two pools were taken into Mississippian rocks before being plugged back to the producing zone.

The **Hugoton Gas Area** added 19 new Chase group producers during the year, bringing the total number of producing wells to 242. These wells produced 22,320,095 thousand cubic feet of gas during 1953, bringing the cumulative production of the county to more than 109,027 million cubic feet of gas since the first commercial well was completed in 1922. The other completed gas wells were added to the **Liberal-Light** and **Liberal Southeast** pools.

The **Liberal-White** pool was combined with the **Liberal-Light** pool during the year after a new producing zone, the Lansing-Kansas City, was assigned the pool. The new zone was reported as an oil producer, having an initial potential of more than 1,000 barrels of oil per day. Gas production from the well seemingly comes from the Morrowan.

The three dry wildcat tests were drilled relatively close to production; however, all three penetrated Mississippian strata. The Columbian Fuel Corporation test on the Alexander property in the Cen. SE¼ NW¼ sec. 34, T. 33 S., R. 32 W. found the top of the Mississippian at 5,790 feet depth, drilling from an elevation above sea level of 2,675 feet. The No. 1 Blucher test drilled by J. M. Huber Corporation in the Cen. SW¼ NE¼ sec. 13, T. 35 S., R. 31 W., found the top of the Chesteran rocks at 6,143 feet, drilling from a sea level elevation of 2,679 feet. J. M. Huber drilled and also reworked the No. 1 Pound test in sec. 18, T. 35 S., R. 32 W., where the top of the Mississippian is found at 6,157 feet depth from an elevation above sea level of 2,771 feet.

Seward County wells and dry wildcat tests are shown on Plate 2. Gas production is given in Table 57, and oil production in Table 56. The pertinent data on the new gas pools are given in Table 6, and the new producing zone in Table 7. Historical data on the **Hugoton Gas Area** are given in the chapter on natural gas.

SHERIDAN COUNTY

(Map Fig. 4)

The 1953 production from 8 pools: oil 381,093 barrels. Wells drilled during 1953: oil 12, gas 1, dry 15, total 28 including 7 dry wildcat tests. New pools discovered 3.

Developments during 1953.—Wildcatting in western Sheridan County resulted in the finding of two new oil pools, the **Wessel** and **Wessel North.** The **Wessel** pool was discovered by the Westpan Hydro-Carbon Company No. 1 Wessel test in sec. 27, T. 6 S., R. 29 W. in March. An initial potential of 216 barrels of oil per day was given the Lansing-Kansas City rocks from depths of 4,092 to 4,096 feet. The **Wessel North** pool, also Lansing-Kansas City production, was discovered by Sauvage and Dunne Drilling Company test on the Brantley property in sec. 16, T. 6 S., R. 29 W. Here the producing zone from 4,081 to 4,085 feet was assigned an initial potential of 80 barrels of oil per day. These successful exploratory tests resulted in eight extension wells added to the **Wessel** pool and several dry wildcats southwestward from the two **Wessel** pools.

The third new pool, the **Hortonville,** is located about 4 miles southeast of the **Adell** pool in sec. 20, T. 6 S., R. 26 W. The National Cooperative Refinery Association drilled the successful test on the Hardesty lease. Production is from depths of 3,789 to 3,812 feet in the Lansing-Kansas City limestone. Initial potential of the well was reported as 64 barrels of oil per day. The hole tested Arbuckle rocks which were topped at 4,168 feet before

TABLE 52.—*Dry wildcat tests drilled in Sheridan County during 1953*

Company and farm	Location	Surface elevation, feet	Depth to top of Lans.-K.C., feet	Depth to top of Mississippian, feet	Total depth, feet
*Allan, Henderson et al. No. 1 Godfrey	SW¼ NW¼ NE¼ 25-6-29W	2,727	3,879	.....	4,100
*J. G. Brown & Associates No. 1 Reed	SW¼ SW¼ SW¼ 21-6-30W	2,941	4,000	4,540	4,608
Graham-Messman-Rinehart Oil Co. No. 1 Scheelz	SE¼ NE¼ SE¼ 35-7-26W	2,499	3,698	.....	4,102
Graham-Messman-Rinehart Oil Co. No. 1 Emigh	NW¼ NW¼ NE¼ 4-7-29W	2,808	3,944	4,451	4,488
*Nadel & Gussman No. 1 Pope	SE¼ SE¼ SE¼ 18-7-29W	2,896	3,993	4,545	4,610
Don E. Pratt No. 1 Cooper‡	SW¼ SW¼ SE¼ 25-8-29W	2,794	3,918	4,462	4,640
Anschutz Drlg. Co. No. 1 Gassmann	SE¼ SE¼ SE¼ 28-10-29W	2,753	3,880	4,442	4,590

*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 Arbuckle, 4,595 feet.

being plugged back to production. The No. 2 Hardesty test was completed for 180 barrels of oil per day.

Three of the seven dry wildcat tests reported good shows of oil, but in most, the water problem prohibited successful completion. Pertinent data on the tops of marker horizons encountered in drilling are tabulated in Table 52. The new pools are described in Table 6. The locations of producing areas and dry wildcat tests are shown on Figure 4. Oil production data are given in Table 56.

SHERMAN COUNTY

Wildcat tests have been drilled in Sherman County from time to time, but as yet no oil or gas pool has been found.

Exploration during 1953.—Two wildcat tests were drilled in Sherman County during 1953. The Bankoff Oil Company completed a dry hole on the Reams farm in the NE¼ NE¼ SE¼ sec. 10, T. 8 S., R. 40 W. Drilling from an elevation of 3,709 feet above sea level, important marker beds encountered were the Topeka limestone at 4,098, Heebner shale at 4,380, Lansing limestone at 4,426, Marmaton group at 4,769, "Cherokee group" at 5,100, and Morrowan variegated clays at 5,182 feet. Total depth of the test was reported as 5,214 feet.

The Slosson test on the Riley farm in the SE¼ NE¼ SW¼ sec. 14, T. 9 S., R. 40 W. in August stopped in rocks of Mississippian age at a total depth of 5,316 feet. From a sea level elevation of 3,744 feet, the following marker beds were found: Stone Corral anhydrite, 3,170; Topeka limestone, 4,046; Heebner shale, 4,356; Lansing limestone, 4,390; Marmaton group, 4,840; "Cherokee" shale, 5,120; and the Mississippian at 5,230 feet depth. There were no shows of oil or gas.

SMITH COUNTY

Wildcat wells have been drilled in Smith County from time to time, but as yet no oil or gas pool has been found.

Exploration during 1953.—One attempt to find production was made in Smith County during 1953. In September, E. W. Whitney drilled a rank wildcat test on the Jacobs lease in the SE¼ NE¼ SW¼ sec. 28, T. 4 S.. R. 13 W., into the Arbuckle rocks to a total depth of 4,200 feet. Drilling from an elevation of 1,735 feet above sea level the tops reported were: Topeka limestone, 2,680; Heeb-

ner shale, 2,916; Lansing limestone, 2,962; Mississippian rocks, 3,678; "Hunton," 3,790; Viola, 3,970; Simpson, 4,119; and Arbuckle dolomite, 4,175 feet depth. No shows were reported.

STAFFORD COUNTY

(Map Fig. 11)

The 1953 production from 135 pools: oil 6,374,805 barrels, gas 1,161,615 thousand cubic feet. Wells drilled during 1953: oil 203, gas 1, dry 193, salt-water disposal 3, total 400 including 24 dry wildcats. New pools discovered 19. Pools combined 7, abandoned 1.

Developments during 1953.—Ninety more tests were attempted in Stafford County during 1953 than during 1952, and the total oil production increased about 6 percent. This increased exploratory drilling resulted in the finding of 19 new oil pools.

The new Stafford County oil pools are the **Cephas, Cleveland, Cleveland South, Diamond, Green Ridge, Green Valley, Hahn, Newell, North Star North, Oscar South, Prairie Home South, Pritchard Southeast, Radium, Radium Townsite, Radke, Shepherd South, Slade, Taylorville,** and **Wood.** Nine of the new pools are Lansing-Kansas City producers, six produce from the Arbuckle dolomite, and four from the Viola limestone. The named producing zone, the Viola, in the **Radium** pool was carried as dry by scout reports. Both the **North Star North** and **Radium** pools, carried by the scout reports as dry discovery wells, reported some production during the year. Among the newly discovered pools, the **Cephas** pool received the most additional successful drilling during the year, adding 10 extension oil wells. Data on the locations and initial potentials of the discovery wells are given in Table 6.

The eight new producing zones in old fields are the Lansing-Kansas City in the **Bunselmeyer** (now part of the **Gates** field), **Dell Northeast, Drach West, Hazel, Radium,** and **Rothgarn Southeast** pools. The Simpson was named in the **Koelsch Southeast** and the **Wood** pools.

There were seven combinations of pools having a common reservoir during the year. The **Curtis South** pool was combined with the **Curtis,** the **Curtis West** with **Smallwood, Marie** with **Fischer Northwest, Eden Valley** with **Pundsack,** and **Bunselmeyer, Gates South,** and **Moon** with **Gates.** The **Pleasant Hill** pool, discovered in 1951 and having a cumulative production of only 69 barrels, was abandoned during the year.

Many of the Stafford County pools received extension oil wells during the year. Among the pools adding the larger number of these producers are **Gates** 30, **Koelsch Southeast** 14, **Oscar West** 16, **Max** 11, **Curtis** 8, **Pundsack** 8, and **Richardson** 6.

Six Stafford County pools produced more than 300,000 barrels of oil each during 1953. They are the **Drach, Fischer Northwest, Gates, Max, Mueller,** and **Richardson.** Nineteen of the 21 old wells worked over were made into oil producers, 1 gas, and only 1 dry hole.

Fifteen of the 24 dry wildcat tests drilled during the year reported shows of oil or gas. Pertinent data on the depths of marker horizons penetrated in drilling these important tests are tabulated in Table 53.

Significant data on the new producing zones in old fields are given in Table 7. Locations of producing areas and dry wildcat tests are shown on Figure 11. Oil production data are given in Table 56, and gas production data in Table 57.

TABLE 53.—*Dry wildcat tests drilled in Stafford County during 1953*

Company and farm	Location	Depth to top of Lans.-K.C., feet	Depth to top of Penn. Basal Cong., feet	Depth to top of Arbuckle, feet	Total depth, feet
Amerada Petro. Corp. No. 1 Chesky	SW¼ SE¼ NW¼ 28-21-11W	3,110	3,372	.....	3,518
*Natl. Coop. Ref. Assn. No. 1 Smith Estate	SE¼ SE¼ NE¼ 29-21-11W	3,122	3,382	3,605	3,632
*Walters Drlg. Co. No. 1 Ring	NW¼ NW¼ NE¼ 17-23-12W	3,399	3,670	3,851	3,891
Walters Drlg. Co. No. 1 Cornwell	NW¼ NW¼ NW¼ 18-23-12W	3,419	3,686	3,873	3,910
Petroleum, Inc. No. 1 Meyer	NE¼ NW¼ SW¼ 19-23-12W	3,440	3,716	3,910	3,916
*Petroleum, Inc. No. 1 Miller	NW¼ SE¼ SW¼ 6-23-13W	3,489	3,802	3,921	3,946
*Woody Speer No. 1 Eidson	SE¼ SE¼ NW¼ 25-23-13W	3,470	3,803§	3,940	3,945
Natural Gas & Oil Corp. et al. No. 1 Tanner	SE¼ NW¼ NE¼ 7-23-14W	3,572	3,915	4,074	4,110
Petroleum, Inc. No. 1 Osborne Est. "A"	SW¼ SW¼ SE¼ 12-23-14W	3,497	3,826	3,956	3,990
Anschutz Drlg. Co. No. 1 Weir	SW¼ SW¼ NW¼ 33-24-11W	3,449	3,778	3,903§	3,965
Anschutz Drlg. Co. No. 1 Falen	S½ SE¼ NW¼ 34-24-11W	3,428	3,871§	.....	3,956

Westgate-Greenland Oil Co. No. 1 Garner	SE¼ SE¼ SE¼ 8-24-13W	3,568	3,923§	4,113	4,153
*Welch & Olsson Oil Co. No. 1 English	SE¼ NW¼ SE¼ 1-24-15W	3,661	4,005	4,116	4,130
Honaker Drlg. Co. No. 1 Suiter	SW¼ SW¼ NW¼ 20-24-15W	3,758	4,250§	4,481	4,508
The El Dorado Refg. Co. et al. No. 1 McCune	NW¼ NW¼ SE¼ 3-25-11W	3,421	3,897§	4,072	4,097
M & L Oil Co. No. 1 Fuller "A"	NE¼ SE¼ NW¼ 4-25-11W	3,426	.....	3,886§	3,910
Coop. Ref. Assn. No. 1 Barr "A"	NE¼ NE¼ NE¼ 9-25-11W	3,444	3,751	4,095	4,123
Skelly Oil Co. et al. No. 1 Dickson	NW¼ SE¼ SW¼ 17-25-11W	3,516	3,846	4,162	4,202
Natl. Coop. Ref. Assoc. No. 1 McCune "B"	NW¼ SW¼ SW¼ 4-25-12W	3,562	3,914	4,146	4,217
Helmerich & Payne, Inc. No. 1 Neill	SE¼ SE¼ NE¼ 5-25-14W	3,733	4,118	4,375	4,450
Helmerich & Payne, Inc. No. 1 Boylan	SE¼ SE¼ SE¼ 32-25-14W	3,805	4,208	4,494	4,534
*Trans-Era Petro., Inc. No. 1 Wilson "B"	SW¼ SW¼ NE¼ 13-25-15W	3,843	4,287	4,585	4,640
*Natl. Coop. Ref. Assoc. No. 1 Aiken	NE¼ NW¼ NE¼ 18-25-15W	3,844	4,248	4,622	4,654
Birmingham-Bartlett Drlg. Co. No. 1 Frack	NE¼ NE¼ SW¼ 35-25-15W	3,857	4,425§	4,595	4,620

*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.

STANTON COUNTY

(Map Pl. 2)

The 1953 production: gas 16,018,254 thousand cubic feet, all from the Hugoton Gas Area. Wells drilled during 1953: gas 27, dry 1 (wildcat).

Developments during 1953.—Stanton County lies partly within the **Hugoton Gas Area.** The present western limits of gas production pass through the approximate center of the county in a north to south direction. During 1953, 27 new gas wells were drilled within the limits of gas production as previously outlined by dry holes at the edge. The 1953 gas production from 206 wells was more than 16,018 million cubic feet and brought Stanton County's cumulative to more than 61 billion cubic feet.

In T. 30 S., R. 40 W. the old limits of the area were slightly extended toward the west by some of the new wells. These new wells are small, suggesting that the boundary of Chase group production is near by.

Possibilities of finding gas in the older rocks such as the Wabaunsee, Shawnee, Lansing, Morrowan, and Mississippian have not been explored adequately. These rocks have recently yielded good gas wells in adjacent Morton County. The Superior Oil Company drilled a wildcat test in the SW¼ SW¼ NE¼ sec. 30, T. 29 S., R. 41 W. on the Wade ranch, 10 miles west of the boundary of the **Hugoton Area.** The Chase group at a depth of 2,250 feet was found unproductive. The Heebner shale was found at 3,609 feet, Lansing limestone at 3,637 feet, base of the Kansas City limestone at 4,208, Marmaton group at 4,260, Chesteran Series (Mississippian) at 5,432, Osagian rocks at 6,094, Ordovician Viola dolomites at 6,240, Simpson shales at 6,354, and Arbuckle dolomite at 6,361 feet. Drill-stem tests at various levels found only salt water. The total depth is 6,435 feet.

Stanton County wells are shown on Plate 2. Gas production, the active area, and the producing zone are listed in Table 57. Historical data on the **Hugoton Gas Area** are given in the chapter on natural gas.

STEVENS COUNTY

(Map Pl. 2)

The 1953 production: gas 101,239,764 thousand cubic feet, all from the Hugoton Gas Area. Wells drilled during 1953: gas 4.

Developments during 1953.—Inasmuch as most of the available drilling sites within the county have been occupied previously, very few places remain open for **Hugoton** gas development. During 1953, four widely separated new producing wells were drilled.

The 696 producing **Hugoton** gas wells in Stevens County accounted for more than 101 billion cubic feet of gas during the year, bringing the cumulative production of gas in the county since the discovery of commercial quantities in 1927 to more than 1,174 billion cubic feet.

The new gas wells are shown on Plate 2.

SUMNER COUNTY

(Map Fig. 13)

The 1953 production from 36 pools: oil 1,655,041 barrels including 14,700 barrels from 1 secondary recovery project, gas none reported. Wells drilled during 1953: oil 32, dry 49, salt-water disposal 1, total 82 including 13 dry wildcats. New pools discovered 4.

Developments during 1953.—Four new pools were discovered in Sumner County during 1953. These are the **Bitter Creek, Dyal, Hilltop,** and **State Line,** all in the southeastern part of the county. The **Dyal** and **Hilltop** pools produce from the "Bartlesville sand," the **State Line** from the "Cleveland sand," and the **Bitter Creek** from the Mississippian strata. Before the end of the year five oil wells had been completed in the **Hilltop** pool.

Routine development in older pools added five oil wells to the **Guelph** pool, three to the **Oxford,** and five to the **Portland. Fall Creek** pool, the county's largest individual oil-producing pool, accounted for almost 375,000 barrels of oil during the year. Other large pools in the county, each producing more than 88,000 barrels

TABLE 54.—*Dry wildcat tests drilled in Sumner County during 1953*

Company and farm	Location	Depth to top of "Stalnaker", feet	Depth to top of Mississippian, feet	Depth to top of Simpson, feet	Total depth, feet
The Texas Co. No. 1 Hammers	SW¼ NW¼ NW¼ 1-30-3W	2,816	3,734	4,196	4,333
Deep Rock Oil Corp. No. 1 Martin	SE¼ SE¼ SW¼ 26-31-3W	3,060	3,924	.....	3,984
The Texas Co. No. 1 Helen Mears	SE¼ SE¼ SE¼ 19-32-4W	3,265	4,254	4,698	4,731
*E. H. Adair Oil Co. et al. No. 1 Pearce	SE¼ SE¼ SE¼ 34-32-4W	3,002	3,970	4,301	4,317
Herndon Drlg. Co. No. 1 Rusk	SE¼ NE¼ NW¼ 12-33-1W	.....	3,804	4,257	4,275
Herndon Drlg. Co. No. 1 Schmidt	SE¼ NE¼ SE¼ 30-33-2W	3,080	4,086	4,494	4,675
Herndon Drlg. Co. No. 1 McProud	SE¼ SE¼ SE¼ 34-34-1W	.....	3,895	4,260	4,279
*Alpine Oil & Royalty Co., Inc. No. 1 Roy	SW¼ SW¼ SE¼ 5-34-2W	2,980	4,070	4,522	4,582
Time Petro. Co. et al. No. 1 Werneke	NE¼ NE¼ SE¼ 36-34-2W	2,960	4,186	4,631	4,675
*Rocket Drlg. Co. No. 1 George	NE¼ SW¼ SE¼ 27-33-1E	2,622	3,618	3,965	4,065
Anderson-Prichard Oil Corp. No. 1 Hoffman	NW¼ SW¼ SW¼ 27-34-1E	2,637	3,700	4,057	4,066
Four States Oil Co. No. 1 Miller	NW¼ NW¼ NW¼ 19-34-2E	2,450	3,551	3,834	3,960
*Natural Gas & Oil Corp. No. 1 McCormick	NE¼ SW¼ NW¼ 31-34-2E	2,390	3,503	3,732	3,758

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

this year, were the **Guelph, Oxford, Perth, Wellington,** and **Zyba Southwest** pools.

The five new wells added to the **Portland** pool during the year produce from the "Layton," while older wells in the pool produce from the Simpson. Three of the wells completed successfully in the **Guelph** pool produce from the "Layton" also. These new producing zones were not officially named by the Kansas Nomenclature Committee during 1953.

Four of the 13 dry wildcat tests reported shows of oil or gas. Significant data concerning these important rank wildcat tests are given in Table 54. Locations of producing areas and dry wildcat tests are shown on Figure 13. Descriptions of the new pools are given in Table 6. Oil production is listed in Table 56. Data on the one secondary recovery project, the Wellington Unit, are given in Table 1.

THOMAS COUNTY

The 1953 production from 1 pool: oil 1,347 barrels. Wells drilled during 1953: dry 2 (wildcats).

Developments during 1953.—No further development in Thomas County's only oil pool, the **Mingo**, took place during 1953. Two rank wildcats were drilled in the county, both penetrating the pay zone of the **Mingo** pool, the Mississippian.

The Natural Gas and Oil Corporation completed their Mississippian test on the Drew lease in the SE¼ SE¼ NW¼ sec. 25, T. 7 S., R. 31 W., at a total depth of 4,643 feet. From an elevation of 2,978 feet above sea level, the test found the Heebner shale at 4,008 feet, Lansing limestone at 4,050, and Mississippian strata at 4,605 feet. No shows of oil or gas were reported although drill-stem tests were made at two levels in the Lansing-Kansas City group.

The Herndon Drilling Company completed their Mississippian test early in the year on the Ostmeyer lease in the NE¼ NE¼ SE¼ sec. 1, T. 10 S., R. 31 W., at a total depth of 4,710 feet. Sample log tops reported from an elevation of 2,993 feet above sea level were Topeka limestone, 3,656; Heebner shale, 4,003; Lansing limestone, 4,044; base of the Kansas City, 4,321; and Mississippian strata, 4,616 feet depth. No shows were recorded.

TREGO COUNTY

(Map Fig. 10)

The 1953 production from 20 pools: oil 1,032,215 barrels. Wells drilled during 1953: oil 33, dry 46, total 79 including 20 dry wildcat tests. New pools discovered 6.

Developments during 1953.—Although the drilling program Trego County fell off from the previous year's high, the county passed the million barrel annual production mark for the first time, an increase of more than 25 percent from the previous year.

Six new producing pools were discovered in the eastern part of the county during the year. They are the **Adair, Hixson, Kutina, Locker, Spaulding,** and **Wakeeney Northwest** pools. The **Kutina** discovery well in sec. 29, T. 15 S., R. 21 W. was carried as dry on the scout reports, and no 1953 production was reported from the lease. The **Adair** and **Hixson** are new Marmaton producing pools, the **Spaulding** and **Wakeeney Northwest** are new Lansing-Kansas City pools, and the **Locker** produces from the Pennsylvanian basal conglomerate. Two extension wells were successfully completed before the year's end in the **Wakeeney Northwest** pool.

Development drilling in the older fields resulted in the addition of eight Arbuckle wells in the **Ogallah** pool, nine Pennsylvanian basal conglomerate wells in the **Groff** pool, and five Marmaton-Pennsylvanian basal conglomerate (?) wells in the **Sunny Slope** pool. These three pools accounted for most of the increased oil production during 1953 also.

Most of the dry wildcat tests attempted during the year in Trego County were in the eastern three ranges of the county. Only 5 of the 20 dry wildcat tests reported specifically shows of oil or gas; however, numerous drill-stem tests were taken on many of the tests. Important marker horizons encountered in drilling these holes are listed in Table 55.

Descriptions of the discovery wells of the new pools are given in Table 6. Locations of producing areas and dry wildcat tests are shown on Figure 10. Oil production by pools is given in Table 56.

WABAUNSEE COUNTY

(Map Pl. 1)

The 1953 production from 5 fields: oil 566,331 barrels. Wells drilled in 1953: dry 2 including 1 dry wildcat.

TABLE 55.—*Dry wildcat tests drilled in Trego County during 1953*

Company and farm	Location	Surface elevation, feet	Depth to top of Anhydrite, feet	Depth to top of Lansing, feet	Depth to top of Arbuckle, feet	Total depth, feet
*Amerada Petro. Corp. No. 1 Glenn Spena	SE¼ SE¼ NE¼ 31-11-22W	2,382	.....	3,631	4,062	4,118
Aurora Gasoline Co. No. 1 Hixson	SE¼ SE¼ NW¼ 32-11-23W	2,421	1,960	3,789	4,497	4,530
The El Dorado Refg. Co. et al. No. 1 Owens	NE¼ NE¼ SE¼ 15-11-24W	2,398	2,005	3,764	4,514	4,544
*Transit Corp. et al. No. 1 Shaefer	NE¼ NE¼ SW¼ 2-12-21W	2,313	1,740	3,622	3,956	4,020
Aurora Gasoline Co. et al. No. 1 Hixson	SE¼ SE¼ SE¼ 2-12-22W	2,351	1,800	3,648	4,054	4,105
*C-G Drlg. Co. No. 1 Benson	NE¼ SE¼ SE¼ 16-12-22W	2,366	1,798	3,664	4,094	4,124
Rocket Drlg. Co. et al. No. 1 Rinker	SW¼ SW¼ NE¼ 17-12-22W	2,387	1,809	3,679	4,117	4,162
United Drlg. Co. No. 1 Hubalek	NW¼ NW¼ SE¼ 19-12-22W	2,377	1,790	3,656	4,097	4,152
Sohio Petro. Co. No. 1 Loflin Est.	SE¼ SW¼ SW¼ 27-13-21W	2,331	1,700	3,679	4,098	4,150
*Doley Oil Co. et al. No. 1 Lindsay	SW¼ SW¼ NE¼ 25-13-22W	2,358	1,765	3,709	4,249	4,302
*Jones, Shelburne & Farmer, Inc. No. 1 Mai	NW¼ NW¼ SE¼ 21-13-23W	2,403	1,853	3,776	4,531	4,581
*Musgrove Petro. Corp. No. 1 Madden "B"	SW¼ SW¼ NE¼ 18-14-21W	2,266	.....	3,609	4,064	4,115
Lewis Drlg. Co. No. 1 Wiedeman	SW¼ SW¼ NE¼ 16-14-23W	2,306	1,770	3,714	4,575	4,611
Republic Natural Gas Co. No. 1 Riedel	SE¼ SW¼ SE¼ 20-14-23W	2,279	1,725	3,674	4,536	4,600
Aladdin Petro. Corp. No. 1 Stenzel	NW¼ NW¼ SE¼ 21-14-23W	2,288	1,740	3,689	4,530	4,573
Deep Rock Oil Corp. No. 1 Moore	SE¼ SE¼ NW¼ 1-15-21W	2,065	1,375	3,411	3,858	3,900
Harry Gore No. 1 Brenner	NW¼ NW¼ NW¼ 14-15-21W	2,145	1,488	3,590	4,151	4,255
D. R. Lauck Oil Co., Inc. No. 1 Unrein	NE¼ NE¼ NE¼ 34-15-21W	2,334	1,660	3,764	4,320	4,357
*Braden Drlg. Co. et al. No. 1 Lecuyer "A"	SE¼ SE¼ NW¼ 11-15-22W	2,289	1,662	3,693	4,355	4,417
Mid-Western Constr. Co. No. 1 Kraft "B"	NE¼ NE¼ SE¼ 8-15-23W	2,288	1,710	3,685	4,533	4,666

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

Developments during 1953.—Oil production in Wabaunsee County showed a marked increase over that of 1952 when 333,294 barrels were reported.

A wildcat test, the Continental Oil Company No. 1 H. R. Falk well in the SW¼ SW¼ NW¼ sec. 23, T. 13 S., R. 8 E., was abandoned in January 1953, at a total depth of 2,400 feet. Tops were logged as follows: Lansing, 1,434; Kansas City, 1,530; "Hunton," 1,937; Maquoketa, 2,078; Viola, 2,163; Simpson, 2,272; and Arbuckle, 2,357 feet.

A dry hole in the **Woodbury** field, in the SE¼ SE¼ SW¼ sec. 36, T. 14 S., R. 10 E. was reported abandoned in the St. Peter (Simpson) sandstone at a depth of 3,395 feet. An old well in the field was worked over for a salt-water disposal well.

Locations of the dry wildcat well and of the Wabaunsee County oil fields are shown on Plate 1. Oil production statistics for the county are listed in Table 56.

WICHITA COUNTY

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

Exploration during 1953.—Three rank wildcat tests were drilled in Wichita County during 1953. The Rooney, Siegfried and Thomas No. 1 D. C. Lindberg test was drilled in the SW¼ SW¼ SW¼ sec. 12, T. 17 S., R. 37 W. to a total depth of 4,980 feet, from an elevation above sea level of 3,270 feet. The Stone Corral was topped at 2,450, Heebner shale at 3,948, Lansing limestone at 3,996, base of the Kansas City at 4,372, and Mississippian strata at 4,876 feet depth.

Woodward and Company drilled the other two dry wildcat tests. The Alexander test was located in the NW¼ NW¼ SE¼ sec. 4, T. 20 S., R. 35 W. Drilling from an elevation of 3,186 feet above sea level, the Stone Corral was reported at 2,340, Heebner shale at 4,090, Lansing limestone at 4,130, and Mississippian strata at 4,970 feet depth. No shows were reported; total depth of the test was 5,114 feet. The second Woodward and Company test was on the O. W. Lehner lease in the SE¼ SE¼ NE¼ sec. 6, T. 20 S., R. 36 W. and was drilled to a total depth of 5,055 feet. From the sea level elevation of 3,279 feet, the following tops were reported: Dakota sandstone, 720; Stone Corral, 2,320; Lansing limestone, 4,060; and Mississippian rocks, 4,944 feet.

WILSON COUNTY

(Map Pl. 1)

The 1953 production: oil from 27 areas in 11 fields 70,438 barrels, gas 191,642 thousand cubic feet. Wells drilled in 1953 (reported): oil 4, dry 8, total 12 including 1 dry wildcat. Estimated total 50.

Developments during 1953.—Oil production in Wilson County was substantially more than in 1952 when 67,271 barrels were reported. Four dry holes were reported in the **Buffalo** field. Three new oil wells were reported in **Benedict** field; one dry hole in each of the **Buxton, Humboldt-Chanute**, and **Neodesha** fields. A small oil well was reported in the **Fall River** field, from which no production has been reported for some time.

A dry wildcat well was reported abandoned at 1,485 feet. It is the Sloan et al. No. 1 Beason in the SW¼ NW¼ SW¼ sec. 1, T. 27 S., R. 14 E. It is estimated that at least 50 wells were drilled in the county in 1953.

Locations of areas that produced oil in 1953 are shown on Plate 1. Oil production in Wilson County is listed in Table 56, and gas in Table 57.

WOODSON COUNTY

(Map Pl. 1)

The 1953 production: oil from 29 areas in 21 fields 688,346 barrels, including 15,689 barrels from 1 secondary recovery project, gas 11,824 thousand cubic feet. Wells drilled (reported): oil 32, dry 25, input 1, total 58 including 2 dry wildcats. Estimated total 100.

Developments during 1953.—Oil production increased substantially in Woodson County in 1953. Drilling activities were on the increase in Woodson County in 1953 when it is estimated that at least 100 wells were drilled.

Two wildcat wells tested the upper part of the Mississippian limestone and higher rocks. The C. E. Ash No. 1 Holley well, SE¼ NE¼ NW¼ sec. 18, T. 25 S., R. 15 E., was abandoned at a total depth of 1,598 feet. The top of the Lansing was logged at 360 feet, top of the Kansas City at 420 feet, "Bartlesville" at 1,438 feet, and top of the Mississippian limestone at 1,535 feet. The Artnell Oil Company No. 1 Pendley well, NE¼ NE¼ SW¼ sec. 5, T. 26 S., R. 15 E., was abandoned at a total depth of 1,535 feet. The top of the Kansas City was logged at 510 feet, Marmaton at 732 feet,

top of "Cherokee" at 1,079 feet, "Bartlesville sand" at 1,253 feet, and top of Mississippian limestone at 1,460 feet.

Reported wells include: 1 oil well, 1 dry hole, and 1 input well in the **Batesville** field; 3 oil wells in the **Big Sandy** field; 1 oil well and 1 dry hole in the **Halligan** field; 2 oil wells and 1 dry hole in the **Hoagland** field; 3 oil wells and 3 dry holes in the **Neosho Falls** field; 1 dry hole in the **Quincy** field; 1 dry hole in the **Rose** field; 1 oil well in the **Virgil North** field; 4 oil wells and 3 dry holes in the **Wiede** field; 10 oil wells and 11 dry holes in the **Winterscheid** field; 2 oil wells and 1 dry hole in the **Wissman** field; and 3 oil wells in the **Yates Center** field.

Data on secondary recovery operations in Woodson County are listed in Table 1. Oil production data are listed in Table 56, and gas in Table 57. Locations of areas that produced oil in 1953 are shown on Plate 1.

WYANDOTTE COUNTY

(Map Pl. 1)

The 1953 production: oil none, gas 5,470 thousand cubic feet.

Developments during 1953.—The gas came from wells in the **Roberts-Maywood** field which extends into Leavenworth County. No drilling was reported in the county.

TABLE 56.—*Oil production in Kansas during 1953*

Pool or field name and year of discovery	Location of discovery well	Area, acres	1953 production, bbls.	Cumulative production to end of 1953, bbls.	No. producing wells	Producing zone	Depth to producing zone, feet
ALLEN COUNTY							
Bronson-Xenia*	17-25-21E	5,000			45+	"Bartlesville"	700
a			130,249				
b			2,671				
Colony West* (1922)	15-23-18E	500	3,386		7	"Squirrel"	820
Davis-Bronson*	24-21E	600			6+	"Bartlesville"	720
a			468				
b			13,283				
Elsmore Shoestring (1908)	5-26-21E	2,000	57,946		45+	"Bartlesville"	650
Elsmore West (1911)	12-26-20E	620			16	"Bartlesville"	775
a			6,904				
b			624				
Humboldt-Chanute*	26-18E	12,000			392	"Bartlesville"	850
a			6,339				
b			238,863				
c			18,979				
d			1,491				
e			12,373				
Iola	24-18E	4,800			29	"Bartlesville"	850
a			86,987				
b			5,081				
c			82				
d			526				
e			489				
f			276				
g			156				
h			871				
i			2,642				
Moran (1903)	25-20E	600			6	"Bartlesville"	820
a			7,949				
b			492				
c			1,911				
Neosho Falls* (1928)	29-23-17E	800	11,562		4	"Squirrel"	950
						Mississippian	1,200
Seibert	5-26-20E	300	818		3	"Bartlesville"	680
Total Allen County		27,220	613,418	16,027,246 recorded	553+		
ANDERSON COUNTY							
Bush City Shoestring (1921)	28-20-21E	4,200			723	"Squirrel"	620
a			420,133				
b			1,441				
Centerville* (1920)	10-21-22E	2,000			70	"Squirrel"	480
a			112,143			"Bartlesville"	720
b			909				
Colony-Welda (1916)	4-23-19E	2,000			95	"Weiser"	600
a			1,764			"Squirrel"	780
b			1,646				
c			750				
d			731				
e			431				
f			45,952				
Colony West* (1922)	15-23-18E	900	11,859		9	"Squirrel"	825
Garnett Shoestring (1904)	32-20-20E	2,100			165	"Squirrel"	700
a			2,563			"Garnett"	800
b			10,098				
c			11,065				
Kincaid (1921)	10-23-21E	1,000			37	"Bartlesville"	750
a			19,881				
b			10,808				

TABLE 56.—*Oil production in Kansas during 1953, continued*

Pool or field name and year of discovery	Location of discovery well	Area, acres	1953 production, bbls.	Cumulative production to end of 1953, bbls.	No. producing wells	Producing zone	Depth to producing zone, feet
Selma (1929)	9-22-21E	no report					
Selma (1929)	9-22-21E		no report			"Bartlesville"	700
Miscellaneous			952		1		
Total Anderson County		12,200	653,126	15,564,089 recorded	1,100		
			BARBER COUNTY				
Amber Creek (1952)	36-30-12W	40	857	857	1	Mississippian	4,296
Amber Mills (1951)	15-30-12W		no report	none		Viola	4,480
Boggs (1946)	17-33-12W	1,200	336,150	1,985,387	31	Simpson	4,806
Clara* (1948)	36-29-11W	40	14,951	54,498	1	Simpson	4,472
Deerhead (1943)	22-32-15W	400	80,519	716,840	10	Viola	4,950
DeGeer (1948)	2-33-15W	560	4,559	739,239	15	Viola	5,176
Donald (1946)	33-31-15W	80	1,526	1,526	2	Mississippian	4,697
Gerlane (1950)	29-33-11W	40	6,534	21,371	1	"Miss. chat"	4,530
Lake City (1937)	7-31-13W	200	6,182	305,082	3	Viola	4,435
						Simpson	4,530
						Arbuckle	4,607
Medicine Lodge (1937)	13-33-13W		no report	45,703		"Misener"	4,845
Rhodes (1949)	15-33-11W	1,200	376,637	911,084	31	Mississippian	4,551
			4,467		1	Viola	4,803
Roundup (1953)	28-33-11W		no runs	none		Mississippian	4,486
Skinner (1943)	29-31-14W	2,000	75,519	1,741,600	19	Viola	4,626
						Simpson	4,422
Skinner North	29-31-14W		Included with Skinner				
Stumph (1952)	7-32-14W	120	16,160	20,866	3	Simpson	4,963
Sun City (1941)	35-30-15W	640	31,489	1,527,646	13	Lans.-K.C.	4,344
Turkey Creek (1943)	20-30-15W	40	2,385	54,349	1	Lans.-K.C.	4,345
						Simpson	4,438
Turkey Creek North (1952)	17-30-15W	40	1,229	4,034	1	Penn. congl.	4,541
Whelan (1934)	32-31-11W	1,300	237,308	2,799,121	28	"Chat"	4,355
Pools or fields abandoned				3,270			
Total Barber County		7,900	1,196,472	10,932,473 recorded	161		
			BARTON COUNTY				
Ainsworth South (1937)	10-17-13W	1,900	289,815	3,907,179	61	Lans.-K.C.	3,170
						Arbuckle	3,390
Alefs (1952)	14-19-14W	120	18,673	35,920	3	Lans.-K.C.	3,334
						Arbuckle	3,474
Ameh (1951)	19-18-11W	80	7,540	32,889	2	Lans.-K.C.	3,103
Ames (1943)	22-18-11W	1,000	167,536	1,422,449	32	Lans.-K.C.	3,042
						Arbuckle	3,348
Ames Northwest (1947)	9-18-11W	120	11,776	30,960	3	Lans.-K.C.	3,106
						Arbuckle	3,312
Anton (1950)	28-19-11W	500	75,000	146,476	11	Lans.-K.C.	3,216
			64,090		9	Arbuckle	3,342
Ash Creek* (1947)	31-20-15W	500	1,743	471,251	6	Arbuckle	3,787
Axman (1949)	19-17-14W	120	14,460	111,865	3	Arbuckle	3,400
Barrett (1943)	36-16-14W	800	28,540	182,008	8	Lans.-K.C.	3,355
						Arbuckle	3,463
Bart-Staff* (1951)	4-21-14W	500	118,331	251,136	13	Lans.-K.C.	
						Arbuckle	3,572
Batchman (1950)	19-20-12W	80	10,293	36,109	2	Arbuckle	3,459
Beaver (1934)	16-16-12W	2,000	148,854	3,540,681	47	Cread	2,885
						Toronto	2,938
						Arbuckle	3,348
						Reagan	3,335
Beaver North* (1937)	4-16-12W	380	27,093	653,034	10	Arbuckle	3,316

Beaver South (1945)	27-16-12W	1,500	90,496	617,862	25	Sooy	
						Arbuckle	3,359
Behrens (1944)	6-20-15W	950	26,220	568,219	19	Arbuckle	3,719
Bergtal (1941)	22-20-15W	40	331	2,664	1	Arbuckle	
Bergtal South (1951)	27-20-15W		no report	108		Arbuckle	3,775
Bernard (1950)	10-19-11W	320	52,086	191,284	13	Shawnee	2,866
						Lans.-K.C.	3,224
						Arbuckle	
Bieberle (1952)	4-19-11W	700	99,641	100,572	17	Lans.-K.C.	3,121
						Arbuckle	3,395
Bieberle North (1953)	33-18-11W	Combined with Bieberle					
Blood Creek (1950)	9-18-13W		no report	2,077		Lans.-K.C.	3,078
Bloomer (1936)	36-17-11W	1,100	306,991	10,844,719	66	Lans.-K.C.	3,044
						Arbuckle	3,257
Bloomingdale (1950)	8-18-11W	Combined with Ames Northwest					
Boyd (1942)	4-18-14W	3,900	30,140	5,702,096	4	Lans.-K.C.	3,177
			655,587		114	Arbuckle	3,438
						Pre-Cambrian	3,311
Buckbee (1949)	11-20-12W	40	3,111	17,638	1	Arbuckle	3,352
Buckbee South (1953)	23-20-12W		no report	none		Arbuckle	3,373
Buckbee Southwest (1952)	15-20-12W	320	32,072	33,266	7	Arbuckle	3,373
Capitol View (1950)	9-17-14W	40	2,309	12,337	1	Lans.-K.C.	3,230
Carroll (1944)	21-17-14W	2,200	282,955	2,146,278	51	Lans.-K.C.	3,109
						Arbuckle	3,356
Carroll Southwest (1947)	32-17-14W	80	4,479	52,013	4	Lans.-K.C.	3,193
Chase-Silica* (1931)	32-19-9W	17,300	2,322,173	54,338,106	434	Lans.-K.C.	2,955
						Arbuckle	3,328
Cheyenne View (1949)	12-19-12W	1,280	253,661	1,072,099	53	Lans.-K.C.	3,152
						Arbuckle	3,390
						Penn. congl.	3,393
Clarence (1953)	35-19-15W		no report	none		Lans.-K.C.	3,291
Davidson* (1930)	4-16-11W	80	4,611	245,061	2	Lans.-K.C.	3,016
						Sooy	3,317
						Arbuckle	3,314
Dundee (1945)	29-20-14W	80	93	13,745	2	Arbuckle	3,507
Eberhardt (1935)	14-19-11W	320	14,173	436,606	7	Lans.-K.C.	3,194
Ellinwood North (1937)	33-19-11W	40	4,427	89,606	1	Lans.-K.C.	3,090
						Arbuckle	3,328
Enfield (1947)	15-16-11W		no runs	7,875	11	Arbuckle	3,343
Ens (1953)	13-19-14W	80	6,606	6,606	2	Lans.-K.C.	3,326
Foltes Northwest (1945)	3-16-12W	Combined with Beaver					
Fleske (1953)	3-20-15W	40	1,815	1,815	1	Lans.-K.C.	3,457
Fort Zarah (1950)	30-19-12W	3,200	355,628	2,137,893	45	Lans.-K.C.	3,157
			512,620		66	Arbuckle	3,384
Fort Zarah North (1951)	19-19-12W	320	31,809	69,870	5	Lans.-K.C.	3,208
Frank (1952)	7-19-12W	120	7,232	8,564	3	Lans.-K.C.	3,322
Fransen (1949)	6-20-12W		no report	295		Lans.-K.C.	3,196
Great Bend Airport (1952)	26-19-14W	760	121,426	222,278	16	Lans.-K.C.	3,320
						Arbuckle	3,473
Great Bend East (1951)	34-19-13W	40	204	1,153	1	Lans.-K.C.	3,234
Great Bend Southwest (1952)	25-19-14W	200	28,384	55,085	5	Lans.-K.C.	3,322
Great Bend West (1951)	23-19-14W	120	26,280	51,326	3	Lans.-K.C.	3,332
Great Bend Townsite (1953)	21-19-13W	80	2,430	2,430	2	Arbuckle	3,441
Hayan (1938)	20-20-11W	100	17,246	433,696	4	Arbuckle	3,323
Hall-Gurney* (1931)	30-14-13W	800	204,878	1,371,526	33	Shawnee	
						Lans.-K.C.	3,066
						Sooy	
						Arbuckle	
Hammeke (1950)	17-19-11W	160	13,803	79,809	4	Lans.-K.C.	3,065
Hammeke Southeast (1950)	17-19-11W	120	8,410	57,896	3	Lans.-K.C.	3,089
Hamner (1940)	35-19-12W	1,000	259,762	825,873	31	Lans.-K.C.	3,088
						Arbuckle	3,348
Hamner North (1949)	23-19-12W	1,200	161,784	1,164,340	57	Lans.-K.C.	3,222
						Arbuckle	3,344
						Penn. congl.	3,407
Harpel (1953)	34-17-15W		no report	none		Arbuckle	3,544
Harrison (1942)	18-20-13W		no runs	4,160	1	Arbuckle	3,520
Hawkins (1952)	3-19-13W	160	18,061	21,782	4	Lans.-K.C.	3,158
						Arbuckle	3,393
Hawkins Northwest (1953)	33-18-13W	40	1,093	1,093	1	Arbuckle	3,428

TABLE 56.—*Oil production in Kansas during 1953, continued*

Pool or field name and year of discovery	Location of discovery well	Area, acres	1953 production, bbls.	Cumulative production to end of 1953, bbls.	No. producing wells	Producing zone	Depth to producing zone, feet
Heizer (1935)	16-19-11W	40	2,039	48,686	1	Lans.-K.C.	3,228
Heizer Northeast (1952)	15-19-11W	40	945	6,502	1	Lans.-K.C.	3,353
Heizer Southwest (1952)	21-19-11W	80	3,280	3,280	2	Lans.-K.C.	3,379
						Arbuckle	3,552
Hiss (1936)	31-20-13W	320	18,502	622,289	8	Lans.-K.C.	3,270
Hiss East (1952)	33-20-13W	80	19,712	19,712	2	Lans.-K.C.	3,383
						Arbuckle	3,549
Hiss Northeast (1953)	29-20-13W	80	9,221	9,221	2	Lans.-K.C.	3,326
						Arbuckle	3,549
Hiss South (1950)	31-20-13W	120	16,135	62,635	3	Arbuckle	3,542
Hiss Southeast (1948)	32-20-13W	320	15,265	137,912	8	Lans.-K.C.	3,414
						Arbuckle	3,545
Hoisington (1938)	21-17-13W	640	81,652	1,327,672	34	Lans.-K.C.	3,222
						Arbuckle	3,440
Homestead (1948)	22-18-13W		no report	12,720		Arbuckle	3,310
Kaufman* (1947)	33-15-12W	Combined with Beaver North					
Klepper (1951)	2-19-11W	640	40,411	99,561	9	Lans.-K.C.	3,220
Klug (1946)	28-17-13W	80	2,961	41,276	2	Arbuckle	3,414
Klug North (1948)	27-17-13W	120	11,666	104,166	3	Arbuckle	3,377
Koopman (1953)	23-19-13W	40	2,993	2,993	1	Arbuckle	3,398
Kowalsky* (1941)	32-20-11W	1,000	161,508	930,154	29	Lans.-K.C.	3,185
						Arbuckle	3,378
Kraft-Prusa* (1937)	10-17-11W	26,300	5,469,309	71,107,876	796	Shawnee	2,885
						Douglas	2,997
						Lans.-K.C.	3,160
						Arbuckle	3,281
						Reagan	3,310
						Gorham	3,335
						Pre-Cambrian	
Kraft-Prusa Northeast (1941)	36-16-11W	260	21,864	341,114	7	Lans.-K.C.	3,250
						Arbuckle	3,351
Kramp (1952)	7-19-11W	160	17,932	28,938	2	Lans.-K.C.	3,243
			9,425		2	Arbuckle	3,351
Lake Barton (1948)	21-18-13W		no report	6,861		Arbuckle	3,372
Lanterman (1934)	15-19-11W	900	25,477	921,440	12	Lans.-K.C.	3,109
						Arbuckle	3,235
Larkin (1951)	10-17-11W	200	17,685	75,124	5	Lans.-K.C.	3,280
Leoville (1950)	7-17-11W	700	162,146	496,182	23	Lans.-K.C.	3,267
						Arbuckle	3,464
Liberty (1952)	23-20-11W	40	4,413	4,413	1	Lans.-K.C.	3,341
Mary Ida* (1950)	31-18-10W	400	99,885	248,011	11	Lans.-K.C.	3,033
						Arbuckle	3,272
Mary Ida North (1952)	25-18-11W	40	2,930	3,171	1	Arbuckle	3,304
McCauley (1949)	34-17-13W		no report	16,733		Lans.-K.C.	3,276
Meadowside (1949)	24-18-11W	160	12,645	151,818	2	Lans.-K.C.	3,079
			16,604		2	Arbuckle	3,284
Merten Northeast (1946)	36-18-15W	40	959	17,221	1	Arbuckle	3,494
Merten Southeast (1949)	12-19-15W	40	4,601	24,873	1	Reagan	3,567
Moses (1953)	13-20-11W	40	325	325	1	Lans.-K.C.	3,322
Odin (1948)	3-17-12W	100	44,051	121,899	9	Arbuckle	3,321
Otis-Albert* (1935)	30-18-15W	7,000	311,169	4,672,828	105	Reagan	3,601
Pawnee Rock* (1936)	13-20-16W	400	8,406	215,406	4	Arbuckle	3,832
Pawnee Rock East (1941)	17-20-15W	40	919	26,408	1	Arbuckle	3,814
Peach (1952)	25-16-11W	40	521	1,810	1	Lans.-K.C.	3,373
Pendergast (1953)	27-19-15W	40	2,390	2,390	1	Lans.-K.C.	3,397
						Arbuckle	3,596
Prairie View (1950)	20-19-11W	320	45,686	203,836	7	Lans.-K.C.	3,080
Pritchard (1944)	34-20-11W	1,400	190,564	2,081,979	32	Lans.-K.C.	3,290
						Marmaton	3,625
						Arbuckle	3,455
Pritchard Southeast* (1953)	2-21-11W	80	4,090	4,090	2	Arbuckle	3,472
Putnam (1951)	7-17-13W	160	15,672	48,549	4	Lans.-K.C.	3,286
Putnam West (1951)	1-17-11W	80	9,930	25,185	2	Lans.-K.C.	3,225

Red Brick (1953)	23-19-13W	40	328	328	1	Lans.-K.C.	3,240
Redring (1950)	31-17-12W	320	33,121	119,386	9	Lans.-K.C.	3,083
						Arbuckle	3,335
Redring South (1952)	6-18-12W	40	3,256	6,383	1	Arbuckle	3,325
Reif South (1950)	31-16-12W	80	5,547	26,041	3	Lans.-K.C.	3,172
Rice (1936)	1-19-11W	900	53,136	1,046,769	19	Lans.-K.C.	3,106
						Arbuckle	3,355
Roesler* (1943)	14-18-11W	1,400	267,756	604,281	30	Arbuckle	3,291
Roesler East (1950)	13-18-11W	Combined with Zink, then Roesler					
Rolling Green (1948)	36-20-13W		no runs	16,333	2	Lans.-K.C.	3,257
Rolling Green East (1949)	30-20-12W		no report	7,955		Arbuckle	3,491
Rowland (1949)	32-17-13W	40	1,138	9,604	1	Arbuckle	3,323
Rusco (1950)	8-19-12W	40	1,158	7,582	1	Arbuckle	3,417
Sadie (1951)	12-18-11W	Combined with Roesler					
St. Peter (1944)	5-19-11W	80	7,402	114,839	2	Lans.-K.C.	
						Arbuckle	3,387
Sanford (1951)	25-17-14W	160	6,028	27,465	4	Arbuckle	3,375
Sandrock (1951)	21-20-13W	800	84,185	95,320	13	Lans.-K.C.	3,412
Sandrock South (1952)	28-20-13W	Combined with Sandrock					
Silica South* (1935)	24-20-11W	3,000	1,236,689	22,540,389#	141	Lans.-K.C.	3,035
						Arbuckle	3,268
Sunflower (1949)	8-17-12W		no report	1,969		Arbuckle	3,376
Sunnyside (1953)	33-20-11W		no report	none		Lans.-K.C.	3,186
Sunny Valley (1949)	7-20-12W	200	23,780	281,305	6	Lans.-K.C.	3,230
Thill (1953)	28-19-11W	Combined with Anton					
Trapp* (1936)	23-15-14W	13,100	1,368,490	47,223,120	416	Shawnee	2,889
						Dodge	2,966
						Lans.-K.C.	3,062
						Arbuckle	3,252
Underwood (1950)	15-17-13W	80	1,419	8,956	2	Lans.-K.C.	3,442
						Arbuckle	3,342
Unruh (1945)	24-20-15W	500	30,781	162,135	10	Arbuckle	3,641
Walnut Creek (1952)	8-19-13W	40	2,265	4,445	1	Lans.-K.C.	3,347
Wearne (1951)	4-20-12W	40	934	6,126	1	Arbuckle	3,384
Weikert (1953)	36-18-12W	120	12,257	12,257	3	Lans.-K.C.	3,169
Werner-Robl (1951)	30-19-11W	1,500	64,007	136,435	11	Lans.-K.C.	3,106
						Arbuckle	3,364
Werner-Robl Northwest (1951)	24-19-12W	Combined with Werner-Robl					
Werner-Robl South (1951)	30-19-11W	Combined with Werner-Robl					
Workman (1944)	33-20-12W	160	37,296	62,235	6	Arbuckle	3,407
Zimmer (1953)	28-19-15W		no report	none		Arbuckle	3,631
Zink* (1950)	13-18-11W	Combined with Roesler					
Pools or fields abandoned				155,557			
Total Barton County		112,110	17,075,634	250,786,147 recorded	3,143		

BOURBON COUNTY

Bronson-Xenia*	17-25-21E	600			6	"Bartlesville"	665
a			7,379				
b			59				
Davis-Bronson*	23-21E	400			5	"Bartlesville"	560
a			282				
b			2,069				
c			1,126				
Hepler* (1917)	27-22E	760			10+	"Bartlesville"	
a			25,813				
b			88				
Miscellaneous			1,219		1		
Total Bourbon County		1,760	38,035	735,972 recorded	22+		

BROWN COUNTY

Livengood (1944)	3-1-15E		no report	84,124 recorded		"Hunton"	2,580

TABLE 56.—*Oil production in Kansas during 1953, continued*

Pool or field name and year of discovery	Location of discovery well	Area, acres	1953 production, bbls.	Cumulative production to end of 1953, bbls.	No. producing wells	Producing zone	Depth to producing zone, feet
			BUTLER COUNTY				
Allen-Robison (1943)	1-26-3E	1,300	43,305		33	Mississippian	2,70
Augusta (1914)	21-28-4E	6,500		37,661,058	173	Lansing	1,70
a			434,288			Kansas City	2,00
b			1,609			Marmaton	2,20
						Ordovician	2,44
						Arbuckle	2,60
Augusta North (1914)	28-27-4E	1,280	136,021	14,676,490	69	Lansing	1,65
						Kansas City	1,95
						Ordovician	2,38
						Arbuckle	2,41
Bare (1952)	31-28-5E	40	996	2,328	1	"Bartlesville"	2,77
Bausinger (1929)	24-27-3E	80	3,444		2	"Wilcox"	3,05
Benton (1925)	26-3E	80			2	Miss. "chat"	2,96
a			1,616				
b			1,890				
Blankenship* (1921)	26-8E	1,400		2,355,747	107	"Bartlesville"	2,65
a			584,699				
b			567				
c			10,273				
Brandt-Sensenbaugh (1925)	22-28-7E	1,800		1,839,394	34	Miss. "chat"	2,69
a			43,895				
b			3,522				
Brickley (1951)	2-27-7E	200	22,110	68,834	6	"Bartlesville"	2,63
Brickley Southwest (1952)	3-27-7E	80	3,578	5,283	2	"Bartlesville"	2,69
Butwick (1949)	7-26-3E	400	11,826	78,935	6	Mississippian	2,86
Butwick Northeast (1949)	7-26-3E		no report	4,269		Miss. "chat"	2,82
Combs* (1947)	5-30-5E	320	13,410		5	"Bartlesville"	2,82
						Mississippian	2,85
Combs Northeast (1948)	27-29-5E	100	1,264	26,087	3	"Bartlesville"	2,81
DeMoss (1934)	8-28-7E	600	17,137		21	"Bartlesville"	2,65
						"Burgess"	2,68
Dixon (1946)	12-27-6E		no report	11,279		Kansas City	2,16
						Mississippian	
Douglass (1916)	21-29-4E	250			7	Lans.-K.C.	1,79
a			2,169			Ordovician	3,00
b			214				
c			3,349				
Eckel (1940)	7-27-7E	80	313	59,601	3	Lans.-K.C.	2,19
Edgecomb (1951)	9-25-3E	60	3,765	9,243	2	Mississippian	2,75
Elbing* (1918)	18-23-4E	1,800		4,847,739	87	Kansas City	2,12
a			427,288			Mississippian	2,40
b			33,062			Viola	2,53
c			2,075				
Elbing East (1950)	27-23-4E		no report	25,389		Lans.-K.C.	1,79
El Dorado (1915)	29-25-5E	16,500	3,891,884	215,225,786	1,860	Lansing	1,70
						Kansas City	2,00
						Viola	2,50
						Simpson	2,51
						Arbuckle	2,55
Ferrell (1939)	28-28-8E	1,000	117,464	1,236,474	36	Mississippian	2,64
Four Mile Creek (1951)	5-28-3E	320	44,552	124,063	8	Simpson	3,06
Fox-Bush (1917)	24-29-5E	6,500		3,006,013	96	"Bartlesville"	2,73
a			185,718				
b			110,466				
Fox-Bush West (1953)	15-29-5E		no report			"Bartlesville"	2,83
Garden (1925)	32-26-6E	800	15,018		25	"Bartlesville"	2,76
Guyot (1948)	5-29-5E		no report	11,890		"Bartlesville"	2,80
Hannah (1936)	29-8E	40	3,457	17,619	1	Kansas City	2,12
Hartenbower (1950)	16-29-6E	80	3,449	18,310	2	"Peru"	2,40
Hartenbower South (1951)	16-29-6E		no report	64		Lans.-K.C.	2,06

Haverhill (1927)	34-27-5E	1,600	21,431	4,387,738	55	"Bartlesville"	2,700
Hazlett	24-5E	1,800	196,993	1,072,353	89	Mississippian	2,480
Hickory Creek (1946)	11-28-5E	400	46,291	879,523	29	"Bartlesville"	2,685
						Mississippian	2,700
Joseph (1947)	18-24-5E	40	160	4,229	1	Miss. "chat"	2,491
Keighley (1925)	22-27-7E	1,200	19,164		14	"Bartlesville"	2,650
						Simpson	3,148
Kramer-Stern (1926)	3-28-6E	1,900	240,090		69	Lans.-K.C.	
						Simpson	3,020
						Arbuckle	3,040
"Lanier"	35-26-7E	40	4,369		1+		
Leon (1922)	19-27-6E	800	20,946	2,484,556	23	Miss. "chat"	2,660
						"Bartlesville"	
						Viola	3,050
Long (1949)	15-26-7E	80	2,948	14,781	2	Mississippian	2,780
Long Northeast (1953)	11-26-7E		no report			Mississippian	2,753
Lucas (1946)	6-27-8E	80	3,918		3	"Bartlesville"	2,680
McCullough (1929)	1-28-6E	40	81	491,566	1	"Wilcox"	3,169
Mt. Tabor (1953)	36-29-4E	80	1,968	1,968	2	"Bartlesville"	2,757
Muddy Creek (1950)	13-29-4E	1,000	104,641	236,363	17	"Bartlesville"	2,813
Murdock (1952)	23-25-3E		no report	2,105		Mississippian	2,709
Parsley (1949)	3-26-3E	280	11,560	93,376	6	Mississippian	2,710
Pettit (1926)	17-28-6E		no report			"Wilcox"	3,180
Pierce (1926)	28-25-4E	800	71,225		31	Miss. "chat"	2,550
Pierce West (1951)	20-25-4E	140	4,112	16,958	3	Mississippian	2,515
Potwin (1917)	31-24-4E	5,300	166,645	7,878,844	118	Kansas City	2,550
						Mississippian	2,660
Reynolds-Schaffer (1922)	9-27-6E	2,000	178,146		50	Kansas City	2,375
						Mississippian	2,780
						Viola	3,141
Rombold (1949)	4-26-3E	180	6,154	29,472	3	Mississippian	2,770
Salter (1946)	23-28-3E	360	103,950	1,175,065	27	Simpson	3,000
Semisch (1947)	4-29-6E	1,000	365,553	868,842	75	"Bartlesville"	2,810
Seward (1926)	27-27-7E	320	18,942	1,088,318	15	"Bartlesville"	2,650
Shirm (1946)	19-29-8E	800	54,902	545,749	12	Mississippian	2,766
Smock-Sluss (1917)	2-27-5E	1,900			59	"Bartlesville"	2,700
a			84,063			Viola	3,000
b			2,340				
Snowden-McSweeney (1930)	34-28-6E	1,000	256,054		20+	Mississippian	2,833
Steinhoff (1926)	28-29-6E	80	1,477		2	Mississippian	2,803
Towanda (1948)	5-26-4E	320	343,805	1,394,559	34	Mississippian	2,400
						Viola	2,460
Whitewater (1949)	32-25-4E	160	41,881	266,541	4	Viola	2,625
Whitewater North (1951)	29-25-4E	40	115	6,135	1	Viola	2,700
Womack (1947)	19-28-6E	40	96		1	"Bartlesville"	2,620
						Kansas City	2,190
Young (1920)	27-26-7E	980			45	Mississippian	2,650
a			46,487				
b			15,640				
Total Butler County		66,370	8,615,810	388,447,890 recorded	3,403+		

CHASE COUNTY

Atyeo* (1925)	30-21-10E	300	6,197		1+	"Bartlesville"	2,250
Bazaar (1951)	36-20-8E		no report			Lans.-K.C.	1,823
Teetere (1920)	16-23-9E	900	24,387		24	"Bartlesville"	2,500
Total Chase County		1,200	30,584	204,840 recorded	25+		

CHAUTAUQUA COUNTY

Barroum (1926)	20-34-9E	300	3,816		3	Marmaton	1,780
Brown-Sturgis	33-11E		no report				
Elgin	34-10E	3,000			23+	"Peru"	1,520
a			12,578				
b			574				
c			20,145				

TABLE 56.—*Oil production in Kansas during 1953, continued*

Pool or field name and year of discovery	Location of discovery well	Area, acres	1953 production, bbls.	Cumulative production to end of 1953, bbls.	No. producing wells	Producing zone	Depth to producing zone, feet
d			4,875				
e			9,260				
Frazier	33-13E	600			2	"Peru"	1,52
a			486				
b			397				
Hale-Inge* (1907)	32-12E	1,300			12	"Peru"	1,16
a			2,610				
b			7,854				
c			995				
Hylton	32-9E		no report				
Kingston (1926)	18-32-11E	100	937		1	Miss. "chat"	1,85
						Arbuckle	2,17
Landon-Floyd (1936)	23-32-10E	800	20,511		12	Mississippian	2,00
Lowe	34-10E	40	301		1		
McAllister (1925)	28-32-10E	300	9,557		5		
McGlasson (1947)	11-33-9E		no report				
Malone	18-32-10E	40	1,538		1	Ordovician	2,34
Miotaze	34-13E	400	6,695		4	"Redd"	69
						"Peru"	82
Oliver (1935)	32-11E	700	14,654		5		
Peru-Sedan (1900)	34-11E	30,000			180+	"Peru"	1,20
a			369,996			Mississippian	2,00
b			81,154				
c			9,325				
d			1,133				
e			3,457				
f			28,493				
g			115,817				
h			18,498				
i			12,056				
j			723				
k			26,684				
l			30,807				
m			708				
n			790				
o			2,232				
p			2,641				
Wauneta	31-9E	100	1,573		1	"Peru"	1,67
						Mississippian	2,10
Wayside-Havana* (1904)	34-13E	400			4	"Wayside"	57
a			215			"Weiser"	70
b			891			"Bartlesville"	1,20
c			1,798				
Wiggam	34-32-10E	180	3,441		2	"Weiser"	1,60
Total Chautauqua County		38,260	830,215	43,945,692 recorded	256+		
			CHEYENNE COUNTY				
Judy (1951)	26-1-39W		no report	none		Marmaton	4,49
			CLARK COUNTY				
Ashland (1951)	35-32-23W	160	26,945	46,401	3	Viola	6,52
						Lans.-K.C.	4,67
McKinney* (1950)	2-34-26W	40	704	704	1	Mississippian	5,76
Total Clark County		200	27,649	47,105	4		

CLAY COUNTY

Wakefield (1951)	21-9-4E		no report	none		Mississippian	1,904
Wakefield Northeast (1951)	15-9-4E		no report	none		Mississippian	1,793

COFFEY COUNTY

Dunaway* (1922)	34-22-13E	1,500	34,117		10*	"Burgess"	1,850
						Mississippian	1,873
						Ordovician	2,200
Finnerty (1953)	12-21-13E	40	35		1	"Burgess"	1,728
Leroy (1905)	35-22-16E	600			15*		
a			897				
b			215				
c			2,079				
d			4,527				
e			767				
Leroy North		80			2		
a			558				
b			373				
Van Noy (1917)	7-23-15E	1,200	9,367		19	"Peru"	1,170
						Mississippian	1,540
Virgil North* (1920)	22-23-13E	1,400			23*	"Bartlesville"	1,585
a			38,165			Mississippian	1,838
b			142				
Winterscheidt (1920)	23-14E	1,000			15*	"Bartlesville"	1,630
a			6,387			Mississippian	1,760
b			5,866				
Miscellaneous			2,992		4		
Total Coffey County		5,820	106,437	1,382,529 recorded	89*		

COWLEY COUNTY

Arkansas City West (1952)	23-34-3E	40	5,149	13,609	1	"Bartlesville"	3,291
Baird (1925)	17-34-3E	Combined with Geuda Springs					
Baird East (1940)	15-34-3E	Combined with Harvey					
Bergkamp (1952)	6-35-4E	460	113,622	204,134	13	"Bartlesville"	3,202
Bergkamp Northwest (1952)	6-35-4E	40	94	619	1	"Bartlesville"	3,208
Biddle (1922)	7-32-5E	500			16	Kansas City	2,000
a			6,178			"Stalnaker"	2,300
b			6,616				
Bogner (1952)	24-31-5E		no report	1,450		Mississippian	2,999
Box (1948)	28-30-7E	320	24,052	163,415	11	Mississippian	2,840
Brown (1922)	13-31-7E		no report	246,000		Kansas City	2,100
Bruce (1950)	9-30-4E	80	6,741	30,936	2	Arbuckle	3,306
Burden (1926)	31-31-6E	700	23,280		34	"Bartlesville"	2,900
Burden East (1953)	33-31-6E	1,000	61,527	61,527	24	"Layton"	2,194
Cabin Valley (1952)	31-33-6E	700	34,896	37,621	8*	"Layton"	2,138
Canfield (1952)	13-34-3E	640	93,103	96,480	10	"Layton"	2,651
						"Bartlesville"	3,375
						Lans.-K.C.	2,839
Cedarvale (1953)	9-34-8E	40	816	816	1	Mississippian	2,365
Centennial (1953)	12-33-3E	40	2,013	2,013	1	"Bartlesville"	3,267
Centennial North (1953)	1-33-3E	40	337	337	1	"Bartlesville"	3,256
Clark (1914)	6-31-4E	180	28,308		6	"Bartlesville"	2,840
Clover	31-7E		no report	19,355		Kansas City	2,200
						Mississippian	2,800
Combs* (1947)	5-30-5E	400	29,894	356,871	17	"Bartlesville"	2,823
						Mississippian	2,850
Copeland (1952)	5-35-4E		no report	117		Mississippian	3,211
Couch (1937)	13-30-5E	800	70,465	1,943,686	50	"Bartlesville"	2,800
Countryman (1925)	4-33-7E	600	9,596		9	"Layton"	1,950
						Mississippian	2,870
David (1935)	35-30-4E	1,200	180,734	1,680,452	43	"Bartlesville"	2,900
						Arbuckle	3,463
David Northwest (1953)	10-31-4E	Combined with David					

TABLE 56.—*Oil production in Kansas during 1953, continued*

Pool or field name and year of discovery	Location of discovery well	Area, acres	1953 production, bbls.	Cumulative production to end of 1953, bbls.	No. producing wells	Producing zone	Depth to producing zone, feet
David South (1934)	11-30-4E	Combined with David					
Deichman (1941)	24-31-4E	400	27,349	866,447	27	"Bartlesville"	2,900
						Mississippian	3,000
Dexter (1914)	33-6E		no report			Mississippian	2,750
Doane (1947)	36-33-6E	40	1,195	12,420	1	Mississippian	2,870
						Arbuckle	3,140
Dutch Creek (1952)	35-31-4E	40	288	486	1	"Bartlesville"	2,924
Eastman (1924)	5-31-6E	800	42,408		26	"Bartlesville"	2,890
Elrod	4-32-5E	40	4,663		1	"Layton"	2,411
Enterprise (1948)	35-33-3E		no report			"Bartlesville"	3,285
Enterprise Northeast (1952)	35-33-3E	160	15,666	21,737	3	"Bartlesville"	3,335
Enterprise Southwest (1953)	3-34-3E		1,488	1,488	1	"Bartlesville"	3,360
Esch (1928)	33-33-6E	Combined with Rahn					
Falls City (1916)	35-7E		no report	1,272,687		"Layton"	2,000
Ferguson Northwest (1950)	16-30-8E	120	9,518	18,975	3	Kansas City	2,200
Ferguson West (1934)	21-30-8E	40	322		1	Kansas City	2,160
Frog Hollow (1937)	20-32-5E	1,000	119,587	4,392,550	45	"Bartlesville"	3,000
Frog Hollow East (1941)	15-32-5E	500	10,238	267,917	5	"Bartlesville"	3,000
Fussell (1952)	14-34-3E	Combined with Canfield					
Geuda Springs	5-34-3E	1,200	175,414	808,870	27	"Bartlesville"	3,300
						Miss. "chat"	3,345
Gibson (1941)	29-34-3E	600		964,951	43	"Bartlesville"	3,350
a			351,961				
b			1,614				
Graham (1924)	3-33-3E	640	18,047	2,796,238	15	"Layton"	2,550
						Arbuckle	3,516
Grand Summit* (1926)	4-31-8E	40	335		1	Kansas City	2,000
Grouse Creek (1951)	16-30-7E	40	1,531	4,542	1	Mississippian	2,890
Harvey (1952)	23-34-3E	800	463,087	503,729	20*	"Layton"	2,574
						"Bartlesville"	3,278
Harvey Northwest (1952)	15-34-3E	Combined with Harvey					
Henderson (1942)	26-32-3E	80	793	131,800	2	Kansas City	2,690
						Arbuckle	3,419
Hittle (1926)	28-31-4E	800	161,785	9,167,646	44	Kansas City	2,400
						Arbuckle	3,280
Hower (1935)	32-33-3E	Combined with Geuda Springs					
Jarvis	13-33-5E		no report				
McKay (1951)	17-35-4E	640	120,985	224,829	16	"Bartlesville"	3,314
Maddix (1953)	13-33-5E		Abandoned during 1953			Mississippian	3,084
Mansur (1949)	25-31-6E	400	7,579	73,888	7	"Layton"	2,170
Millett (1945)	31-34-3E	40	210		1		
Murphy* (1933)	7-35-3E	1,000	82,160		33	"Bartlesville"	3,450
						Miss. "chat"	3,500
Nigger Creek (1951)	22-34-3E	40	1,598	4,112	1	"Bartlesville"	3,281
"Priest"	7-33-6E		no report	98			
Otto (1927)	25-34-6E	200			4	Miss. "chat"	3,017
a			1,724				
b			3,975				
Rahn (1939)	13-34-5E	1,200		1,461,137	44	"Bartlesville"	2,900
a			1,973				
b			20,618				
Rahn Northeast (1949)	27-33-6E	80	8,789	57,578	5	"Bartlesville"	2,90[illegible]
Rahn Southwest (1943)	28-34-5E		no report	3,790		"Bartlesville"	3,01[illegible]
Rainbow Bend (1923)	20-33-3E	1,500	287,235	15,920,332	100	"Burgess"	3,20[illegible]
Rainbow Bend Northeast (1945)	15-33-3E	160	9,604	41,284	3	"Bartlesville"	3,21[illegible]
Rainbow Bend West*	19-33-3E	320	39,098		3	"Burgess"	3,20[illegible]
						Arbuckle	3,55[illegible]
Rock (1923)	15-30-4E	1,500	192,375	3,623,216	65	"Bartlesville"	2,80[illegible]
Rock North (1937)	3-30-4E	160	7,437	156,862	5	"Bartlesville"	2,80[illegible]
School Creek (1947)	15-32-7E	160	2,985	26,219	3	"Bartlesville"	2,80[illegible]

School Creek North (1953)	10-32-7E		no report	none		"Layton"	2,114
Seacat (1944)	26-33-4E	80	11,045	27,695	2	Mississippian	3,100
Silver Creek (1953)	12-32-5E	40	2,849	2,849	1	"Bartlesville"	3,050
Slick-Carson* (1924)	19-32-3E	320	43,538	3,598,501	16	"Layton"	2,600
						"Bartlesville"	3,150
						Arbuckle	3,450
Smith (1947)	31-3E	40	5,380		1	"Bartlesville"	3,050
State (1926)	15-32-4E	1,200	51,417		12	"Layton"	2,400
						Arbuckle	3,300
Stayton (1949)	32-32-4E	640	17,637	87,696	9	"Bartlesville"	3,100
Stayton South (1953)	5-33-4E	80	8,201	8,201	2	"Bartlesville"	3,165
Thurlow (1927)	8-33-3E	640	13,950		9	Simpson	3,500
Trees (1935)	19-30-4E	400	20,991		13	"Bartlesville"	2,875
Turner (1937)	30-32-6E	80	3,482	284,462	2	"Layton"	2,232
Turner North (1948)	18-32-6E	40	112	469	1	"Layton"	
Turner West (1952)	25-32-5E	40	1,979	4,183	1	Mississippian	3,054
Udall	30-3E	40	12,512		1	Arbuckle	2,850
Weathered (1935)	28-31-3E	600	26,688	2,735,933	17	"Stalnaker"	2,000
						Lans.-K.C.	2,[illegible]
						Mississippian	3,020
						Arbuckle	3,250
Winfield (1914)	32-5E	1,230			55	Admire	600
a			64,145			"Peacock"	1,400
b			177			"Layton"	2,300
						"Bartlesville"	3,050
						Arbuckle	3,300
Winfield South (1945)	1-33-4E	40	19,422	27,897	5	"Hoover"	1,400
Miscellaneous		40	694		1		
Total Cowley County		28,480	3,197,324	74,461,256 recorded	929+		

CRAWFORD COUNTY

Bear Oak	33-28-22E	300	6,471		5	"Bartlesville"	400
Beilers* (1917)	27-22E		no report			"Bartlesville"	
Charleston"	3-31-22E	180	2,696		4		
Malone (1929)	30-22E	6,000	33,444 Includes "Monmouth" pool		195	"Bartlesville"	
"Steimel"	35-29-21E	40	271		1		
St. Paul-Walnut*	28-21E	40	386		1	"Bartlesville"	485
Walnut Southeast	28-22E					"Bartlesville"	400
a		700	11,324		13		
b		40	416		1		
Total Crawford County		7,300	55,008	607,007 recorded	220		

DECATUR COUNTY

Bell Northwest (1952)	34-5-27W	640	124,741	218,323	13	Lans.-K.C.	3,664
Healy (1952)	2-5-27W	160	26,499	44,298	3	Lans.-K.C.	3,590
Herdesty (1952)	22-5-27W	500	38,209	59,760	5	Lans.-K.C.	3,642
Jennings (1951)	25-4-27W	720	48,858	91,017	11	Wabaunsee	3,156
						Lans.-K.C.	3,478
Keaghan (1952)	15-2-27W	40	3,702	5,392	1	Lans.-K.C.	3,514
Killion (1953)	4-3-29W	40	6,180	6,180	1	Lans.-K.C.	3,734
Killion West (1953)	5-3-29W	40	946	946	1	Lans.-K.C.	3,744
Total Decatur County		2,140	249,135	425,916	35		

DICKINSON COUNTY

Achaccord (1943)	30-14-1E	80	4,438	37,787	2	"Burgess"	2,483
Abbott Springs*	16-4E	800	87,081		16	Miss. "chat"	2,300
Abbott Springs North (1945)	22-16-4E	80	6,346	99,997	2	Miss. "chat"	2,300
Abbott Springs Northeast(1947)	26-16-4E	80	4,609	18,167	2	Miss. "chat"	2,300
Total Dickinson County		1,040	102,474	798,659 recorded	22		

TABLE 56.—*Oil production in Kansas during 1953, continued*

Pool or field name and year of discovery	Location of discovery well	Area, acres	1953 production, bbls.	Cumulative production to end of 1953, bbls.	No. producing wells	Producing zone	Dep to duc zon fee
DOUGLAS COUNTY							
Baldwin (1919)	12-15-20E	600	2,000est.	52,910 recorded	18	"Squirrel"	
EDWARDS COUNTY							
Bradbridge (1948)	2-24-16W	120	22,020	79,527	3	Arbuckle	4,
Embry (1953)	23-24-16W	80	3,191	3,191	2	Lans.-K.C.	3,
Enlow (1953)	9-24-16W	120	2,813	2,813	3	Lans.-K.C.	3,
Pools or fields abandoned				102,496			
Total Edwards County		320	28,024	188,027	8		
ELK COUNTY							
Bush-Denton (1920)	4-30-9E	800	24,407		28	"Stalnaker"	1,
						"Peru"	2,
						"Burgess"	2,
Collyer (1924)	30-30-11E	100	8,065		4	Kansas City	1,
						Fort Scott	1,
Dory	18-30-9E	40	1,575		1	Mississippian	2,
Dunkleberger (1920)	34-29-10E	700	41,563		20	Kansas City	1,
						Mississippian	1,
Elk City	31-13E		no report				
Ferguson East	23-30-8E	80	1,794		2	Ordovician	2,
Fleming (1950)	8-29-9E		no report			Arbuckle	2,
Grand Summit*	4-31-8E	120	7,962		3	Kansas City	2,
Hale-Inge* (1907)	31-12E					"Peru"	1,
a		500	4,771				
b		40	307				
c		80	3,247				
Kipfer	29-13E		no report				
Logsden	31-9E		no report				
Longton	31-12E	40	786		1		
Love	30-9E	80	2,481		2	Mississippian	2,
						"Burgess"	2,
Moline (1928)	9-31-10E		no report			Mississippian	2,
New Albany	29-13E	80	1,520		2	"Wayside"	
Oak Valley	31-13E	40	535		1		
"Perkins"	1-30-9E	40	606		1		
Porter (1923)	29-8E	40	7,150		1	Kansas City	2,
						Arbuckle	3,
Schrader (1928)	12-31-8E	600	29,697		5	Kansas City	1,
Severy* (1922)	8-26-11E	40	223		1	Kansas City	1,
Starr (1937)	12-31-9E	40	2,425		1	Mississippian	2,
Walker (1927)	5-31-10E	40	1,263		1	Kansas City	1,
						Mississippian	2,
Webb (1925)	23-31-10E	600	29,242		10	Kansas City	1,
						Fort Scott	1,
						Mississippian	1,
						Arbuckle	2,
Miscellaneous			1,191		2		
Total Elk County		4,100	170,818	14,064,723 recorded	94		
ELLIS COUNTY							
Antonino (1947)	27-14-19W	200	10,995	97,303	5	Arbuckle	3,
						Basal sandstone	3,
Antonino Townsite (1949)	2-15-19W	40	1,228	32,470	1	Arbuckle	3,

Antonino Townsite East (1952)	1-15-19W	120	11,064	14,074	3	Lans.-K.C.	3,344
						Arbuckle	3,634
Beeching (1943)	34-15-15W	500	10,446	240,165	6	Lans.-K.C.	3,156
Bess-Crutts (1935)	16-11-17W	15,000	3,447,828	74,971,775	553	Arbuckle	3,300
Bolton (1952)	24-15-13W	160	14,080	16,993	5	Arbuckle	3,496
Bow Hill (1937)	14-12-16W	1,200	123,624	2,135,029	28	Topeka	3,030
						Lans.-K.C.	3,072
						Gorham	3,348
						Arbuckle	3,360
Brim (1953)	34-13-16W	40	1,853	1,853	1	Penn. congl.	3,459
Brungardt (1952)	35-10-17W	200	50,022	55,172	7	Lans.-K.C.	3,194
Burrette (1937)	1-11-18W	7,000	2,207,437	43,892,040	276	Shawnee	2,967
						Lans.-K.C.	3,093
						Arbuckle	3,570
Burrett Northwest* (1946)	3-11-18W	800	241,693	2,441,587	28	Lans.-K.C.	3,450
						Arbuckle	3,617
Burrett Southwest (1946)	22-11-18W	1,600	503,418	3,904,068	79	Shawnee	3,074
						Lans.-K.C.	3,207
						Simpson	3,582
						Arbuckle	3,633
Canyon (1948)	11-12-17W	40	no runs	8,566	1	Lans.-K.C.	3,361
Catharine (1936)	3-13-17W	400	49,855	789,621	7	Lans.-K.C.	3,262
			64,398		7	Arbuckle	3,516
Catharine Northwest (1944)	4-13-17W	380	61,864	535,423	11	Lans.-K.C.	
						Arbuckle	3,590
Catharine South (1946)	15-13-17W	600	181,373	1,169,091	22	Arbuckle	3,555
Catharine Townsite (1949)	9-13-17W	40	5,162	22,959	1	Arbuckle	3,585
Chrisler (1949)	22-11-16W	40	5,164	27,949	1	Lans.-K.C.	3,100
Cochran (1953)	8-11-18W	40	7,621	7,621	1	Lans.-K.C.	3,328
Deehart (1950)	6-15-18W		Abandoned during 1953			Arbuckle	3,670
Degenhart (1953)	15-15-17W	40	4,099	4,099	1	Lans.-K.C.	3,417
Dinkel (1953)	23-13-17W	40	474	474	1	Lans.-K.C.	3,430
Dreiling (1949)	21-14-16W	640	126,131	461,312	22	Lans.-K.C.	3,120
						Arbuckle	3,367
Dreiling Southeast (1953)	27-14-16W	400	28,657	28,657	7	Lans.-K.C.	3,072
						Arbuckle	3,327
Ellis (1942)	31-12-20W	1,000	98,528	983,289	17	Arbuckle	3,832
Ellis Northeast (1953)	32-12-20W	40	562	562	1	Arbuckle	3,853
Ellis Southe (1952)	12-13-21W	40	2,339	2,339	1	Arbuckle	3,822
Emmram (1937)	4-13-16W	160	8,236	253,669	5	Lans.-K.C.	3,262
Emmram Northeast (1949)	27-12-16W	1,000	116,253	381,941	20	Lans.-K.C.	3,272
						Arbuckle	3,541
Emmram Townsite (1952)	6-13-16W	80	15,872	16,357	2	Lans.-K.C.	3,291
						Arbuckle	3,520
Ewart (1953)	20-12-20W	40	5,062	5,062	1	Lans.-K.C.	3,527
						Arbuckle	3,906
Experiment (1952)	8-14-18W	40	3,352	6,143	1	Arbuckle	3,675
Fairporte (1923)	8-12-15W	1,050	232,784	3,114,281	41	Lans.-K.C.	2,950
						Gorham	3,211
						Arbuckle	3,312
						Reagan	3,350
Fort Hays State College (1950)	1-14-19W	40	no runs	1,203	1	Arbuckle	3,806
Gunther (1952)	17-11-19W	120	3,821	22,942	1	Lans.-K.C.	3,439
			9,802		2	Arbuckle	3,554
Haller (1936)	10-11-18W		Abandoned during 1953			Topeka	3,045
Hamel (1951)	28-14-17W	500	25,070	85,163	6	Lans.-K.C.	3,382
						Penn. congl.	3,453
						Arbuckle	3,476
Hertel (1952)	16-14-16W	40	5,265	11,650	1	Lans.-K.C.	3,134
Hertel Southwest (1952)	17-14-16W	40	3,518	7,078	1	Lans.-K.C.	3,215
Herzog (1940)	20-13-16W	460	7,049	1,225,977	1	Lans.-K.C.	3,232
			87,572		11	Arbuckle	3,450
Holy Cross (1953)	26-12-18W	120	17,760	17,760	4	Lans.-K.C.	3,423
Irvin (1946)	6-14-19W	1,800	285,764	810,817	39	Lans.-K.C.	3,553
						Arbuckle	3,860
Irvin South (1951) (revived)	7-14-19W	80	10,076	10,076	2	Arbuckle	3,837
Jacob (1951)	6-11-19W	40	3,281	9,126	1	Lans.-K.C.	3,542

TABLE 56.—*Oil production in Kansas during 1953, continued*

Pool or field name and year of discovery	Location of discovery well	Area, acres	1953 production, bbls.	Cumulative production to end of 1953, bbls.	No. producing wells	Producing zone	Depth to producing zone, feet
Jensen (1952)	26-12-18W	320	70,757	102,809	7	Lans.-K.C.	3,532
						Arbuckle	3,622
Karlin (1951)	14-13-17W	320	55,164	147,511	9	Lans.-K.C.	3,345
Koblitz (1937)	23-12-18W	1,400	317,885	1,617,559	42	Lans.-K.C.	3,434
						Arbuckle	3,694
Kraus (1936)	22-14-19W		no runs	130,486	2	Sooy	3,735
						Arbuckle	3,732
Kraus North (1953)	16-14-19W		no report	none		Arbuckle	3,801
Krueger* (1944)	35-10-16W	640	145,406	734,943	20	Lans.-K.C.	3,5[illegible]
Leiker (1943)	14-15-18W	700	32,680	151,824#	9	Lans.-K.C.	3,292
						Penn. congl.	3,580
						Arbuckle	3,592
Leiker East (1953)	12-15-18W	40	11,988	11,988	1	Arbuckle	3,575
Leiker Northwest (1953)	10-15-18W	Combined with Leiker					
Lookout Hollow (1950)	31-14-18W		no runs	1,080	1	Lans.-K.C.	
						Arbuckle	3,628
Mendota (1951)	5-11-20W	160	13,843	33,453	5	Lans.-K.C.	3,530
						Arbuckle	3,662
Nicholson (1945)	30-11-20W	250	45,379	357,193	6	Arbuckle	3,842
Nicholson North (1952)	19-11-20W	40	5,345	12,228	1	Lans.-K.C.	3,810
Penny-Tann (1936)	13-15-20W	80	8,312	175,752	2	Sooy	3,655
Pleasant (1944)	2-14-20W	1,080	123,355	1,308,248	20	Marmaton	3,500
						Arbuckle	3,533
						Reagan	3,877
						Penn. congl.	
Pleasant North (1946)	26-13-20W		Abandoned during 1953			Arbuckle	3,796
Pleasant Northwest (1952)	27-13-20W	400	70,170	80,556	10	Arbuckle	3,814
Pleasant Ridge (1950)	20-12-17W	700	118,311	620,088#	15	Lans.-K.C.	3,[illegible]
						Arbuckle	3,663
Pleasant Ridge Southwest (1951)	19-12-17W	40	8,601	23,138	1	Arbuckle	3,673
Polifka (1948)	7-13-17W	500	23,736	55,672	5	Arbuckle	3,[illegible]
Raynesford (1952)	17-13-20W	40	9,027	12,928	1	Penn. congl.	3,[illegible]
						Lans.-K.C.	3,[illegible]
Raynesford East (1952)	16-13-20W	40	10,716	10,716	1	Arbuckle	3,[illegible]
Reed (1949)	5-13-17W	80	2,308	9,278	2	Lans.-K.C.	3,[illegible]
						Arbuckle	3,[illegible]
Reichert (1953)	9-15-19W	40	492	492	1	Lans.-K.C.	3,[illegible]
Riverview (1943)	19-11-18W	1,020	141,379	1,857,738	24	Arbuckle	3,[illegible]
Rome (1952)	27-13-17W	600	101,246	139,455#	10	Arbuckle	3,[illegible]
Ruder (1935)	17-15-18W	640	46,340	1,232,886	9	Lans.-K.C.	3,[illegible]
						Arbuckle	3,572
Schmeidler (1944)	28-12-17W	1,000	110,621	536,975	24	Arbuckle	3,[illegible]
Schmeidler Northwest (1953)	20-12-17W	80	3,408	3,408	2	Lans.-K.C.	3,[illegible]
						Arbuckle	3,[illegible]
Schoenchen (1946)	21-15-18W	1,000	95,938	924,830	18	Arbuckle	3,[illegible]
Sessin (1952)	15-11-19W	560	133,631	183,565	9	Arbuckle	3,[illegible]
Solomon (1936)	28-11-19W	3,200	614,035	1,598,059	88	Arbuckle	3,[illegible]
Sugarloaf (1941)	17-13-17W	400	66,665	595,297	15	Lans.-K.C.	3,331
						Arbuckle	3,645
Sugarloaf East (1950)	21-13-17W	Combined with Sugarloaf					
Sugarloaf Southeast (1941)	28-13-17W	600	22,470	257,655	3	Lans.-K.C.	3,312
			79,467		14	Arbuckle	3,[illegible]
Sunnydale (1952)	1-14-20W	40	885	1,030	1	Arbuckle	3,850
Sweet William (1950)	10-12-20W	40	3,057	11,647	1	Lans.-K.C.	3,700
						Arbuckle	3,[illegible]
Toulon (1935)	3-14-17W	600	23,731	509,541#	7	Lans.-K.C.	3,[illegible]
						Arbuckle	3,[illegible]
Turkville (1953)	11-11-17W	80	9,314	9,314	2	Lans.-K.C.	3,165
						Arbuckle	3,359
Ubert (1936)	12-13-18W	80	10,108	300,341	2	Lans.-K.C.	
						Arbuckle	3,707

Ebert North (1951)	31-12-17W	280	43,647	80,375	6	Arbuckle	3,600
Ebert Northwest (1952)	1-13-18W	120	37,005	47,854	4	Arbuckle	3,592
Victoria North (1953)	6-14-16W	80	4,750	4,750	2	Arbuckle	3,471
Walter (1936)	2-12-18W	1,700	278,898	5,978,235	56	Topeka	3,160
						Lans.-K.C.	
						Arbuckle	3,619
Warren (1949)	12-11-20W	40	6,168	37,922	1	Lans.-K.C.	3,458
Warner (1952)	36-12-20W		no runs	1,509		Penn. congl.	3,863
Westland (1949)	18-15-17W	460	70,313	89,168	12	Lans.-K.C.	3,307
						Arbuckle	3,571
Westland Northwest (1953)	12-15-18W	80	5,058	5,058	2	Arbuckle	3,566
Westland Southwest (1953)	19-15-17W	500	19,575	19,575	6	Lans.-K.C.	3,252
						Arbuckle	3,554
Younger (1944)	6-14-17W	460	62,677	297,396	9	Arbuckle	3,574
Pools or fields abandoned				226,382			
Total Ellis County		56,740	11,164,383	158,371,663	1,726		
			ELLSWORTH COUNTY				
Andrews (1952)	4-17-8W	500	30,187	32,004	5	Arbuckle	3,302
Bloomer* (1936)	36-17-11W	2,900	626,371	13,086,807	94	Lans.-K.C.	3,044
						Arbuckle	3,257
Edwards* (1936)	3-18-8W	Now called Geneseo-Edwards					
Geneseo-Edwards* (1934)	25-18-8W	3,600	1,011,421	15,528,746	140	Simpson	3,157
						Arbuckle	3,278
Heiken (1930)	25-17-10W	700	8,701	156,870	2	Lans.-K.C.	2,974
			73,964		12	Penn. congl.	3,226
			8,715		1	Arbuckle	3,269
Heiken North (1942)	24-17-10W	80	5,851	183,022	2	Arbuckle	3,212
Kraft-Prusa* (1937)	10-17-11W	860	106,334	1,005,640	16	Shawnee	2,885
						Lans.-K.C.	3,160
						Gorham	3,335
						Arbuckle	3,281
						Reagan	3,310
Kraft-Prusa East (1944)	18-17-10W	40	2,852	11,321	1	Arbuckle	3,309
Lorraine (1934)	13-17-9W	2,000	91,828	10,648,649	35	Lans.-K.C.	3,060
						Arbuckle	3,200
Lorraine North (1953)	12-17-9W	80	7,093	7,093	2	Lans.-K.C.	3,066
Mae (1952)	26-17-8W	640	225,386	328,701	18	Arbuckle	3,341
Palacky (1949)	31-16-10W	80	3,982	28,446	2	Lans.-K.C.	3,148
						Arbuckle	3,390
Stoltenberg (1931)	22-16-10W	13,800	1,274,465	36,112,814	346	Lans.-K.C.	3,260
						Arbuckle	3,333
Vacek (1944)	32-15-10W	640	40,386	269,909	7	Arbuckle	3,315
Wert (1951)	20-17-10W	80	7,421	18,032	2	Arbuckle	3,287
Wilkens Southeast (1942)	32-17-9W	300	14,316	439,119	6	Arbuckle	3,220
Total Ellsworth County		26,300	3,539,273	77,857,203	691		
			FINNEY COUNTY				
Beyer (1952)	24-26-33W	40	9,953	13,163	1	Lans.-K.C.	4,398
Damme (1951)	21-22-33W	400	76,494	121,157	8	Mississippian	4,626
Damme Northeast (1953)	16-22-33W	40	4,297	4,297	1	Mississippian	4,639
Damme South (1952)	28-22-33W		Included with Damme			Mississippian	4,690
Fincap (1953)	34-22-33W	40	6,235	6,235	1	Mississippian	4,756
Fincap East (1953)	25-22-33W	40	255	255	1	Marmaton	4,442
Gano (1938)	27-21-34W	1,300	123,689	1,989,381	28	Kansas City	
						Marmaton	
						Cherokee	4,550
						"Miss. lime"	4,654
Sondregger (1952)	21-22-31W	40	3,384	4,593	1	Mississippian	4,737
Stewart (1952)	6-23-30W	40	5,423	8,293	1	Mississippian	4,710
Total Finney County		1,940	229,730	2,147,374	42		
			FORD COUNTY				
Pleasant Valley (1950)	34-27-21W	40	3,531	12,870	1		

TABLE 56.—*Oil production in Kansas during 1953, continued*

Pool or field name and year of discovery	Location of discovery well	Area, acres	1953 production, bbls.	Cumulative production to end of 1953, bbls.	No. producing wells	Producing zone	Depth to datum of zone ft.
			FRANKLIN COUNTY				
LeLoup	15-20E		no report			"Squirrel"	
Paola-Rantoul* (1860)	17-21E	7,000			350	Knobtown	
a			240,137			Hepler	
b			42,825			"Prue"	
c			156,862			"Squirrel"	
d			12,321			"Bartlesville"	
e			25,677				
f			498				
g			2,748				
Miscellaneous			374		1		
Total Franklin County		7,000	481,442	9,064,570 recorded	351		
			GOVE COUNTY				
Beougher (1952)	8-13-30W	40	28	652	1	Lans.-K.C.	4
Coberly (1951)	15-14-29W	80	6,982	39,221	2	Marmaton	4
Gove (1951)	26-13-30W	80	930	3,977	2	Mississippian	4
Jasper (1951)	30-15-29W		no report	740		Lans.-K.C.	3
Lundgren (1952)	30-14-29W	80	1,404	3,728	2	Mississippian	4
Lundgren South (1952)	31-14-29W	360	24,969	28,898	5	Mississippian	4
Pyramids (1952)	9-15-31W	40	806	4,387	1	Marmaton	4
Total Gove County		680	35,119	81,603	13		
			GRAHAM COUNTY				
Alda (1944)	15-7-22W	700	13,792	43,034	4	Lans.-K.C.	3
Alda West (1952)	16-7-22W	Combined with Alda					
Cooper (1950)	11-10-21W	4,850	895,255	3,119,535	100	Lans.-K.C.	3
						Arbuckle	3
Cooper North (1953)	33-9-21W	40	8,182	8,182	1	Arbuckle	3
Crocker (1951)	18-10-21W	40	3,819	14,635	1	Arbuckle	3
Diebolt (1953)	33-10-23W	40	2,647	2,647	1	Lans.-K.C.	3
Dorman (1952)	30-10-23W	40	4,181	8,463	1	Lans.-K.C.	3
Fargo (1950)	26-9-22W	120	9,804	49,094	3	Lans.-K.C.	3
Fargo West (1951)	34-9-22W	80	1,224	2,325	2	Lans.-K.C.	3
Faulkner (1945)	27-10-22W	160	9,706	190,869	4	Lans.-K.C.	3
Gettysburg (1941)	7-8-23W	80	4,240	62,461	2	Lans.-K.C.	3
Harmony (1951)	32-7-22W	700	54,637	85,145	9	Lans.-K.C.	3
Highland (1951)	20-8-22W	40	2,150	8,103	1	Lans.-K.C.	3
Houston (1947)	9-6-22W	40	1,031	19,516	1	Lans.-K.C.	3
Ironclad (1950)	23-9-22W	640	46,456	144,373	8	Lans.-K.C.	3
Laura* (1950)	30-10-20W	40	4,552	13,318	1	Arbuckle	3
Law (1951)	34-9-23W	860	124,649	405,099	12	Lans.-K.C.	3
			11,272		2	Penn. congl.	4
Mickleson (1952)	27-8-22W	80	7,604	13,553	1	Lans.-K.C.	3
			4,213		1	Arbuckle	3
Millbrook (1951)	21-8-23W	40	3,572	13,722	1	Lans.-K.C.	3
Montgomery (1953)	8-8-23W	40	316	316	1	Lans.-K.C.	3
Morel (1938)	15-9-21W	6,400	1,773,335	16,631,864	210	Sooy	3
						Arbuckle	3
Morel East (1949)	13-9-21W	300	39,773	253,209	5	Arbuckle	3
Morel Northwest (1953)	7-9-21W	120	14,174	14,174	3	Arbuckle	3
Morlan (1949)	23-10-21W	360	59,712	302,437	10	Arbuckle	3
Muilenburg (1949)	1-10-21W	80	3,941	22,578	2	Arbuckle	3
Nana (1953)	4-8-24W	40	486	486	1	Lans.-K.C.	3
Noah (1952)	27-10-21W	160	24,133	36,761	4	Lans.-K.C.	3
						Arbuckle	3
Noah East (1953)	26-10-21W	80	4,577	4,577	2	Arbuckle	3

...(1940)	11-8-24W	130	20,580	217,317	5	Lans.-K.C.	3,750
...(1945)	32-5-20W	80	180	1,147	2	Lans.-K.C.	3,297
						Arbuckle	3,575
						Reagan	3,540
...(1952)	21-8-25W	780	41,324	59,070	9	Lans.-K.C.	3,740
...North (1952)	16-8-25W	Combined with Schmied					
...(1952)	8-8-22W	40	6,717	10,811	1	Lans.-K.C.	3,507
...(1952)	1-9-25W	40	9,136	22,004	1	Lans.-K.C.	4,013
...ming (1950)	5-10-21W	900	38,650	340,770	11	Lans.-K.C.	3,530
			64,441		6	Arbuckle	3,818
...ming West (1951)	6-10-21W	Combined with Smith-Denning					
...(1952)	35-10-21W	160	23,390	32,045	4	Arbuckle	3,716
...Southwest (1953)	35-10-21W	400	27,324	27,324	7	Arbuckle	3,688
...rse Creek (1950)	16-9-22W	40	no runs	10,095	1	Arbuckle	3,944
...ter (1951)	23-7-22W	40	2,116	8,992	1	Arbuckle	3,792
...r fields abandoned				12,765			
...tal Graham County		18,780	3,367,291	22,212,816	442		
			GRAY COUNTY				
...1953)	29-29-27W		no report	none		"Cherokee"?	5,103
			GREENWOOD COUNTY				
...(1925)	30-21-10E	300	193,881		16+	"Bartlesville"	2,250
...(1920)	27-8E	580	52,547		32	"Peru"	1,830
						Mississippian	2,445
						Arbuckle	2,740
...North	27-9E	40	335		1	Mississippian	2,477
						Ordovician	2,800
...South (1935)	2-28-8E	40	7,402		1	Mississippian	2,500
...ell (1925)	16-24-13E	160	16,615		4	Mississippian	1,650
...ship (1921)	26-8E	300	22,116		5+	"Bartlesville"	2,650
...ar	26-13E	80	5,946		2+	"New Albany"	427
...g (1924)	22-10E	1,200	96,946		80	"Bartlesville"	2,314
...t (1923)	24-23-10E	1,800	229,428		93	"Bartlesville"	2,000
...(1949)	8-26-11E	40	1,630		1	Mississippian	1,945
...(1925)	27-11E	80	9,094		2	Mississippian	1,900
...tle-Souder (1924)	22-10E	2,200	279,095		133	"Bartlesville"	2,150
...ype (1922)	34-22-13E	1,800	66,285		40*	Mississippian	1,800
...a	31-25-11E	1,800			60	Fort Scott	1,750
...a			64,714			Mississippian	2,000
...b			2,532				
...ware (1926)	4-22-12E	800	126,790		37	"Bartlesville"	1,850
...ey (1926)	18-24-11E	160	6,643		3	"Bartlesville"	1,850
...y (1928)	12-25-12E	40	371		2	Mississippian	1,600
...on (1925)	7-24-12E	3,000			40+	"Bartlesville"	1,650
...a			105,224			Mississippian	1,800
...b			15,345				
...ann (1927)	17-24-13E	160	4,852		4	Mississippian	1,615
...s (1927)	16-23-10E	80			2	"Bartlesville"	2,150
...a			3,399				
...b			75				
...Creek (1950)	32-26-11E	40	502		1	Mississippian	1,871
...ard	22-13E	40	759		1		
...on	25-8E	80			2	"Bartlesville"	
...a			2,006				
...b			1,076				
...	24-13E	120	9,541		3		
...al"	28-25-13E	40	470		1		
...(1926)	29-22-13E	1,800	270,853		55+	"Bartlesville"	1,700
...on	14-22-11E	2,000	217,534		50+	"Bartlesville"	1,800
...ot"	9-22-11E		no report				
...s (1950)	28-24-13E		no report				
...	24-10E		no report				
...n (1923)	7-22-10E	900	35,687		28+	"Bartlesville"	2,350
						Mississippian	2,400
...ms (1922)	25-9E	700	247,027		34+	"Bartlesville"	2,180

TABLE 56.—*Oil production in Kansas during 1953, continued*

Pool or field name and year of discovery	Location of discovery well	Area, acres	1953 production, bbls.	Cumulative production to end of 1953, bbls.	No. producing wells	Producing zone	Dep to duc zon fee
Quincy* (1926)	31-24-12E	1,200			25+	"Bartlesville"	1,
a			9,217			Mississippian	1,
b			5,920				
c			36,523				
Reece	24-26-9E	800			24	Kansas City	1,
a			3,482			Mississippian	2,
b			19,452				
c			643				
Sallyards	25-8E	2,400			60+	"Bartlesville"	2,
a			167,710				
b			64,852				
Scott (1925)	24-23-8E	1,000	109,815		40+	"Bartlesville"	2,
Seeley-Wick (1922)	28-23-11E	5,000			290+	"Bartlesville"	1,
a			537,275				
b			649,621				
Severy*	8-28-11E	100			3	Kansas City	1,
a			3,998				
b			2,860				
Severy North	27-11E	40	1,109		1		
Stanhope	15-26-8E	160	24,344		10	Mississippian	2,
Teeter* (1920)	16-23-9E	3,000	154,180		60+	"Bartlesville"	2,
Teichgraber (1939)	25-8E	600			18	"Bartlesville"	2,
a			17,967				
b			523				
Thrall-Magard (1921)	14-24-9E	4,200			200+	"Bartlesville"	2,
a			1,172,001				
b			73,253				
c			3,626				
Tonovay	25-11E	40	5,615		1		
Tonovay North			no report				
Tonovay West (1950)	33-25-11E	40	153		1	Mississippian	1,
Toronto (1913)	16-26-13E	100			2	"Peru"	1,
a			866			"Bartlesville"	1,
b			2,578				
Tucker			no report				
Verdigris (1953)	2-24-12E		no report	none		Mississippian	1,
Virgil (1916)	14-24-12E	3,600	137,000		110+	"Bartlesville"	1,
						Mississippian	1,
Virgil North* (1920)	22-23-13E	5,000	264,351		200+	"Bartlesville"	1,
						Mississippian	1,
Wiggins (1925)	30-24-11E	1,800	23,497		25+	"Bartlesville"	1,
Wilkerson (1926)	6-25-9E	100	4,898		1+	"Bartlesville"	2,
Willard	7-27-11E	400	36,384		13	Miss. "chat"	1,
Zimmermann (1953)	19-23-10E	40	4,930	4,930	1+	"Bartlesville"	2,
Miscellaneous		40	2,714		1+		
Total Greenwood County		50,040	5,638,077	190,182,234 recorded	1,819+		
HARPER COUNTY							
Bluff Creek (1952)	24-34-5W	40	196	1,284	1	Lans.-K.C.	3,
Grabs (1949)	13-31-9W	360	21,703	53,780	7	Mississippian	4,
Total Harper County		400	21,899	55,064	8		
HARVEY COUNTY							
Burrton* (1931)	1-23-4W		Included with Reno County			Mississippian	3,
						"Hunton"	3,
Burrton Northeast (1942)	3-23-3W	200	155	7,762	2	"Chat"	3,
						Mississippian	3,

Graber (1934)	32-21-1W	40	3,004	151,459	1	"Misener"	3,323
						"Hunton"	3,274
Halstead (1929)	36-22-2W	1,200	23,847	1,940,010	10	"Chat"	3,005
Hollow-Nikkel* (1931)	30-22-3W	2,000	116,945	20,919,833	39	"Chat"	3,195
			Includes McPherson County production			"Hunton"	3,507
						Simpson	3,500
Lester Creek (1949)	3-24-1E		no report	1,202		Lans.-K.C.	2,687
Loerling (1935)	25-22-2W	300	11,836	611,122	5	"Hunton"	3,279
Pools or fields abandoned				123,238			
Total Harvey County		4,140	155,787	23,754,626	57		
			HODGEMAN COUNTY				
Jetmore (1950)	24-22-24W	80	9,827	57,347	2	Mississippian	4,580
Perryville (1951)	3-24-24W	640	128,291	294,154	8	Penn. congl.	4,651
						Mississippian	4,663
Saw Log Creek (1953)	36-23-22W	40	6,548	6,548	1	Marmaton	4,284
Total Hodgeman County		760	144,666	358,049	11		
			JEFFERSON COUNTY				
Booth (1939)	4-10-20E		no report			McLouth	1,450
						Mississippian	1,550
Booth North (1941)	29-9-20E		no report			McLouth	1,450
						Mississippian	1,500
Miscellaneous			277		1		
Total Jefferson County			277	875,360 recorded	1		
			JOHNSON COUNTY				
Dallas	13-13-24E		no report				
			KEARNY COUNTY				
Patterson (1941)	23-22-38W	120	34,722	414,701	3	"Patterson sd"	4,748
			KINGMAN COUNTY				
Artesian Valley (1952)	22-27-10W	140	17,379	26,253	3	Viola	4,315
Bartholomews (1948)	30-27-4W	240	4,007	61,675	6	"Miss. lime"	3,732
Basil (1953)	16-29-7W	160	36,262	36,262	4	Lans.-K.C.	3,727
						Viola	4,511
Broadway (1950)	21-28-5W	1,200	192,463	650,046	30	Mississippian	3,833
Bagley (1952)	11-28-5W	160	23,250	24,305	4	Mississippian	3,794
Cunningham* (1931)	7-28-11W	800	55,738	3,104,981	37	Lans.-K.C.	3,390
Davey (1950)	9-28-5W	600	72,118	225,001	9	Mississippian	3,801
Dresden (1951)	13-27-10W	800	142,720	517,347	24	Lans.-K.C.	3,806
						Mississippian	4,002
						Viola	4,270
Dyer Mound (1951)	22-27-5W	40	4,864	14,894	1	Mississippian	3,800
Eardowne North (1951)	4-28-5W	40	3,397	17,983	1	Mississippian	3,814
Erasmus (1953)	30-29-5W	80	3,706	3,706	2	Viola	4,455
						Simpson	4,468
Fat Creek (1946)	20-28-9W	160	25,345	155,069	4	Viola	4,406
						Simpson	4,475
Garvey (1951)	23-30-8W	600	35,111	44,790	6	Mississippian	4,205
Garvey South (1953)	27-30-8W	40	279	279	1	Mississippian	4,297
Pools or fields abandoned				27,000			
Total Kingman County		5,180	616,669	4,909,591	132		
			KIOWA COUNTY				
Brenham (1947)	29-28-17W		no runs	179		Miss. "chert"	4,821
Coal (1948)	20-30-20W	40	5,609	45,233	1	"Miss. lime"	5,126
Total Kiowa County		40	5,609	45,412	1		

TABLE 56.—*Oil production in Kansas during 1953, continued*

Pool or field name and year of discovery	Location of discovery well	Area, acres	1953 production, bbls.	Cumulative production to end of 1953, bbls.	No. producing wells	Producing zone	De to du zo fe
LABETTE COUNTY							
Altamont	33-19E		no report				
Banzet	35-19E	40	44		1		
Chetopa	36-34-20W	120	681		3		
Coffeyville-Cherryvale*	32-17E	700			9	"Wayside"	
a			434			Fort Scott	
b			330			"Bartlesville"	1
c			1,369				
d			930				
e			1,116				
f			223				
g			32				
Dartnell		40	622				
Edna		40	1,171				
Lake Creek	35-19E	40	2,649		1		
Mound Valley	32-18E	120			3	"U.Bartlesville"	
a			1,011			"L.Bartlesville"	
b			896			Mississippian	
c			144				
Price (1917)	33-18E	300			17	"Bartlesville"	
a			29,512				
b			7,202				
Miscellaneous			989		3		
Total Labette County		1,400	49,355	411,708 recorded	39		
LANE COUNTY							
North Fork (1952)	19-17-29W	80	5,870	8,824	2	Lans.-K.C.	4,
						Marmaton	4,
LEAVENWORTH COUNTY							
Ackerland (1941)	12-10-20E		no report			McLouth	1,
Banker's Life (1941)	3-10-20E		no report			McLouth	1,
Total Leavenworth County				81,050 recorded			
LINN COUNTY							
Centerville* (1920)	10-21-22E	1,100			11	"Squirrel"	
a			1,380			"Bartlesville"	
b			6,915				
c			9,757				
d			54				
Goodrich-Parker (1922)	25-20-21E	1,200	31,133		96	"Squirrel"	
						"Bartlesville"	
LaCygne-Cadmus	20-24E	900			39	Bandera	
a			18,031			Labette	
b			5,383				
c			274				
Total Linn County		3,200	72,927	757,749 recorded	146		
LYON COUNTY							
Atyeo* (1925)	30-21-10E	1,000	154,222		43	"Bartlesville"	2,
Bradfield	24-21-10E	600	48,642		15*	Viola	
Bradfield Northwest (1953)	13-21-10E		Included with Bradfield			Viola	2,
Bushong (1950)	26-16-10E	40	784		1	"Hunton"	2,

Fankhouser* (1926)	4-22-12E	1,100	30,173		7+	"Bartlesville"	1,850
Fitchey-Moore	34-21-10E	500	26,521		6		
Rock Creek (1947)	32-21-11E	160	2,379		4	"Bartlesville"	1,900
Welch-Mohr (1953)	30-20-10E		no report			"Bartlesville"	2,293
Total Lyon County		3,400	262,721	6,389,176 recorded	76+		

MCPHERSON COUNTY

Battle Hill (1945)	24-18-1W	40	2,365	45,753	1	"Chat"	2,825
Battle Hill North (1948)	13-18-1W	40	10,723	63,731	1	"Miss. lime"	2,811
Bitikofer (1940)	1-20-1W	160	3,766	215,850	4	"Chat"	2,885
Bitikofer North (1946)	25-19-1W		no report	9,043		"Miss. lime"	2,892
Boxville (1949)	33-17-2W	80	155	6,153	2	Simpson	3,557
Bornholdt* (1937)	30-20-5W	Now called Welch-Bornholdt					
Burk (1948)	7-18-1W	120	9,690	544	3	Mississippian	2,781
Carten North (1936)	26-18-1W	540	31,659	64,273	12	"Chat"	2,803
Lindberg (1929)	18-19-2W	500	17,537	1,79[illegible]894	11	Lans.-K.C.	2,363
						"Chat"	3,007
Doors (1940)	13-19-1W	80	2,849	7,8[illegible]6	2		
Crowther (1942)	26-17-1W	1,500	121,516	2,987,794	43	"Chat"	2,778
Desrob (1947)	31-17-1W	1,500	321,454	1,869,447	41	"Chat"	2,665
Graber* (1934)	32-21-1W	2,300	732,227	11,311,092	108	"Misener"	3,323
						"Hunton"	3,274
Groveland (1953)	10-20-4W	40	4,988	4,988	1	Viola	3,728
Groveland South (1953)	14-20-4W	40	1,194	1,194	1	Viola	3,719
Gypsum Creek* (1944)	4-17-1W	500	30,601	401,188	15	"Chat"	2,619
Gypsum Creek South (1953)	9-17-1W	40	2,427	2,427	1	Mississippian	2,627
Herre (1940)	21-17-1W	800	35,436	1,463,260	16	"Chat"	2,658
Hollow-Nikkel* (1931)	30-22-3W	Included with Harvey County				"Chat"	3,195
						"Hunton"	3,507
						Simpson	3,500
Henday (1944)	1-19-2W	1,000	39,305	843,753	27	"Chat"	2,984
Johnson (1932)	35-19-3W	920	36,845	3,369,604	9	"Chat"	3,032
Johnson South (1950)	11-20-3W		no report	8,153		Mississippian	3,043
Lindsborg (1938)	8-17-3W	5,400	472,977	7,253,611	104	Viola	3,352
						Simpson	3,360
Lively (1953)	28-19-2W	1,200	70,677	70,677	32	"Miss. lime"	2,955
Lively East (1953)	27-19-2W	Combined with Lively				Mississippian	2,944
Lively South (1953)	34-19-2W	Combined with Lively				Mississippian	2,951
McPherson (1926)	29-18-2W	1,500	50,493	1,577,998	30	Lans.-K.C.	2,340
						"Chat"	2,967
						Viola	3,140
Maxwell (1948)	17-18-1W	160	6,396	30,051	4	"Miss. lime"	2,846
Paden (1943)	10-18-1W	640	200,083	2,639,934	42	"Chat"	2,752
						Viola	3,153
Paden South (1950)	21-18-1W	250	17,255	40,820	6	Mississippian	2,765
Peiber (1949)	17-18-2W	80	4,298	22,401	2	Simpson	3,675
Pitz-Canton (1929)	1-20-2W	12,000	536,894	43,178,064	179	"Chat"	2,935
						Viola	3,112
Roxbury (1938)	18-17-1W	1,000	73,775	3,081,745	29	"Chat"	2,684
						Simpson	3,278
Roxbury South (1942)	30-17-1W	240	8,249	322,226	4	"Chat"	2,658
Roxbury Southeast (1943)	20-17-1W	240	13,254	92,605	4	"Chat"	2,665
Russell (1929)	9-21-3W	3,200	207,613	28,531,187	56	"Chat"	3,095
						Viola	3,301
Welch-Bornholdt* (1924)	35-20-6W	3,200	282,086	11,993,162	102	"Chat"	3,370
Windom (1953)	30-19-5W		no report	none		Mississippian	3,409
Total McPherson County		39,310	3,348,787	123,988,518	892		

MARION COUNTY

Antelope (1947)	33-18-4E		no repo			Miss. "chat"	2,380
Antelope North (1948)	28-18-4E	40	14,56[illegible]		1	Kansas City	1,840
Biscuit Hill (1952)	33-21-4E		no report			Mississippian	2,269
Cedar Creek (1950)	31-20-5E	40	284	2,182	1	Viola	2,563
Covert-Sellers (1920)	28-21-4E	1,200	106,229		45	Viola	2,400
Durham (1953)	34-18-2E	120	18,393	18,393	3	Viola	2,899

TABLE 56.—*Oil production in Kansas during 1953, continued*

Pool or field name and year of discovery	Location of discovery well	Area, acres	1953 production, bbls.	Cumulative production to end of 1953, bbls.	No. producing wells	Producing zone	Depth to producing zone, feet
Edmonds (1953)	31-22-4E	360	12,188	12,188	4	Mississippian	2,47[illegible]
Elbing* (1918)	18-23-4E	500	27,138		4	Kansas City	2,12[illegible]
						Mississippian	2,40[illegible]
						Viola	2,53[illegible]
Elbing East	27-23-4E	120	4,230		3		
Elbing North (1947)	27-22-4E	500	6,053	63,508	4	Miss. "chat"	2,43[illegible]
Fanska (1943)	6-17-1E	40	3,976		1	Miss. "chat"	2,6[illegible]
Florence (1920)	18-21-5E	300	5,344		2	Viola	2,30[illegible]
"Hall"	28-19-4E	40	1,143		1		
Hillsboro (1928)	7-19-3E	500	19,518		8	Mississippian	2,17[illegible]
						Viola	2,82[illegible]
Lehigh (1946)	27-19-1E	40	566	88,529	1	Mississippian	2,60[illegible]
Lost Springs* (1926)	22-17-4E	4,500	235,395		137	Mississippian	2,36[illegible]
Lost Springs East (1942)	35-17-4E	40	1,143		1	Miss. "chat"	2,36[illegible]
Lost Springs Southeast(1948)	10-18-4E	160	5,385	12,341	3	Mississippian	2,34[illegible]
Peabody (1920)	9-22-4E	1,000			11	Viola	2,50[illegible]
a			23,131				
b			22,131				
c			296				
d			60				
Propp	19-4E	200	7,263	27,483	6		
Quarry Siding (1953)	16-19-4E		no report			Mississippian	2,30[illegible]
Shank (1952)	12-22-3E	500		43,711	5	Mississippian	2,47[illegible]
a			18,253				
b			17,617				
Wenger (1947)	11-21-4E	1,000	129,636	678,800	28	"Hunton"	2,77[illegible]
Miscellaneous			no report				
Total Marion County		11,200	679,940	33,310,229 recorded	269		
MEADE COUNTY							
Adams Ranch (1948)	8-35-30W		no runs	1,362	1	Mississippian (?)	
Adams Ranch East (1947)	36-34-30W	180	20,578	48,209	4	Marmaton	5,346
Brownell (1952)	7-34-29W		no runs	2,878	1	Morrowan	5,902
Bruno (1953)	20-33-30W	40	8,547	8,547	1	Morrowan	5,656
Bruno Northeast (1953)	16-33-30W	40	4,679	4,679	1	Morrowan	5,721
Kismet East (1953)	30-33-30W		no report	none		Morrowan	5,645
McKinney* (1950)	2-34-26W	1,000	19,732	23,328	11	Mississippian	5,762
Novinger (1951)	26-33-30W	2,000	390,084	623,797	27	Marmaton	5,270
			11,296		2	Morrowan	5,755
			15,806		1	Mississippian	5,803
Total Meade County		3,260	470,722	712,800	49		
MIAMI COUNTY							
Block	18-24E		no runs			"Squirrel" (?)	
Louisburg	17-25E	500			5	Knobtown	270
a			5,198			"Peru"	430
b			530			"Squirrel"	600
Paola-Rantoul* (1860)	17-23E	12,500			800	Knobtown	300
a			72,604			Hepler	400
b			10,194			"Peru"	500
c			14,506			"Squirrel"	600
d			1,567			"Bartlesville"	700
e			316,812				
f			356				
g			16,941				
h			19,395				
i			28,485				
j			56,469				

k			15,842				
l			1,244				
m			26,272				
Total Miami County		13,000	586,415	14,531,711 recorded	605		
			MONTGOMERY COUNTY				
Brewster	32-16E	700			50+	"Bartlesville"	900
a			1,829			Arbuckle	
b			151				
c			358				
d			24,530				
Carney	35-14E	600	10,589		5	"Bartlesville"	1,320
Coffeyville*	18-31-15E		no report				
Coffeyville-Cherryvale*(1902)	33-17E	4,500			250	"Wayside"	400
a			22,351			Ft. Scott	600
b			644			"Bartlesville"	1,000
c			517			Arbuckle	1,300
d			2,645				
e			1,420				
f			169				
g			179				
h			27,333				
i			8,443				
j			30				
k			41				
l			69				
m			10				
n			832				
Coleman (1921)	28-32-14E	80			2	Arbuckle	1,700
a			913				
b			455				
Jefferson-Sycamore (1903)	18-33-15E	5,000			400	"Weiser"	800
a			290,783			"Bartlesville"	1,200
b			1,062				
c			526				
d			68,462				
e			215				
f			2,471				
g			8,823				
h			519				
i			1,041				
j			705				
k			36				
l			2,943				
m			1,582				
n			72				
o			30,612				
p			483				
Neodesha*	31-16E	800			10	"Bartlesville"	950
a			18,496				
b			996				
c			758				
d			112				
Sorghum Hollow	32-14E	1,600	27,636		15	"Weiser"	800
Tyro (1904)	13-35-14E	2,000			18	"Bartlesville"	1,250
a			12,620				
b			104				
c			2,488				
Wayside-Havana* (1904)	34-14E	6,000			150	"Wayside"	575
a			141,420			"Weiser"	700
b			77			"Bartlesville"	1,200
c			661				
d			1,181				
e			2,416				
f			622				
Miscellaneous			785		1		
Total Montgomery County		21,280	724,215	41,787,266 recorded	901+		

TABLE 56.—*Oil production in Kansas during 1953, continued*

Pool or field name and year of discovery	Location of discovery well	Area, acres	1953 production, bbls.	Cumulative production to end of 1953, bbls.	No. producing wells	Producing zone	Depth to producing zone, feet
MORRIS COUNTY							
Burdick (1949)	15-17-5E	40	1,146	23,334	1	Mississippian	2,22
John Creek (1953)	26-15-9E		no report	none		Viola	3,09
Nelson West (1953)	30-17-5E		no report	none		Mississippian	2,29
Three Mile Creek (1950)	25-16-5E	600	10,635	73,994	4	Mississippian	2,20
Three Mile Creek South (1950)	35-16-5E	700	26,918	82,676	9	Mississippian	2,18
Total Morris County		1,340	38,699	180,004	14		
MORTON COUNTY							
Richfield (1948)	17-32-40W		no runs	829		Basal Penn. (Atokan)	4,99
NEMAHA COUNTY							
Sabetha (1950)	13-2-11E	320	15,975	37,659	5	"Hunton"	2,826
Strahm (1948)	27-2-11E	320		102,942	4	"Hunton"	2,87
a			26,986			Viola	3,55
b			804				
Strahm East (1953)	26-2-11E	120	3,754	3,754	3	"Hunton"	2,826
Total Nemaha County		760	47,519	144,355 recorded	12		
NEOSHO COUNTY							
Erie (1903)	28-20E	3,600			54	"Bartlesville"	650
a			1,922				
b			39,684				
c			10,109				
d			57				
Canville Creek	27-20E	40	72		1		
Humboldt-Chanute*	27-18E	6,000			141	"Bartlesville"	700
a			3,876				
b			25,818				
c			63,493				
d			209				
e			390,691				
f			5,713				
g			4,208				
h			13,279				
i			8,208				
j			502				
k			147				
l			2,986				
m			324				
n			88				
o			1,042				
p			78				
q			268				
Kimball	27-21E	40	2,699		1		
Morehead	30-30-18E	160	10,944		5*	"Bartlesville"	850
St. Paul-Walnut*	29-21E	1,800			18	"Bartlesville"	550
a			1,747				
b			5,783				
c			1,397				
d			355				
e			3,495				
Thayer	29-17E	40	273		1		
Trent	28-21E	40	1,102		1		

Urbana	28-18E	300			6	"Bartlesville"	750
a			3,597				
b			577				
Miscellaneous			7,708		17		
Total Meosho County		12,020	612,451	22,364,960 recorded	845+		
NESS COUNTY							
Aldrich (1929)	7-18-25W	5,200	257,831	2,917,872	40	"Warsaw"	4,428
Arnold (1943)	22-16-25W	300	22,248	350,594	5	Fort Scott	4,436
						"Warsaw"	4,528
Lacasda West (1950)	28-17-26W		no report	none		Mississippian	4,438
Manteno (1945)	31-19-25W	160	3,362	56,158	2	"Warsaw"	4,549
Pools or fields abandoned				7,581			
Total Ness County		5,660	283,441	3,332,205	47		
NORTON COUNTY							
Norton (1953)	36-3-24W	1,500	41,694	41,694	30	Arbuckle	3,778
Norton East (1953)	31-3-23W	Combined with Norton					
Norton South (1953)	1-4-24W	Combined with Norton					
Kaye (1940)	32-5-20W	340	36,649	283,074	6	Lans.-K.C.	3,297
						Arbuckle	3,575
						Reagan	3,540
Kay Northwest (1953)	22-5-21W	40	156	156	1	Arbuckle	3,605
Kay West (1945)	26-5-21W	200	25,744	131,068	5	Arbuckle	3,650
Pools or fields abandoned				32,054			
Total Norton County		2,080	104,243	488,046	42		
OSBORNE COUNTY							
Riggles (1952)	23-10-15W	640	82,815	156,015	12	Shawnee	2,986
						Lans.-K.C.	3,024
						Penn. congl.	3,394
PAWNEE COUNTY							
Ash Creek (1947)	31-20-15W		no runs	240,495	3	Arbuckle	3,787
Ash Creek Southwest (1947)	11-21-16W	40	5,135	102,843	1	Arbuckle	3,779
Benson (1945)	30-23-15W	1,700	131,638	373,515	18	Lans.-K.C.	3,853
Benson South (1952)	30-23-15W	Combined with Benson Southeast then Benson					
Benson Southeast (1946)	32-23-15W	Combined with Benson					
Boarding (1953)	4-20-18W		no report	none		Arbuckle	4,020
Bunes (1953)	22-22-15W	640	49,893	49,893	7	Arbuckle	3,956
Bunes Southwest (1953)	33-22-15W	40	6,205	6,205	1	Lans.-K.C.	3,728
Byers (1951)	1-22-16W	300		97,681		Lans.-K.C.	3,525
			2,708		1	Penn. congl.	3,814
			37,218		4	Simpson	3,861
			18,550		3	Arbuckle	3,908
Byers Northeast (1953)	31-21-15W	40	3,386	3,386	1	Arbuckle	3,915
Carfield (1947)	17-23-17W	40	503	7,812	1	Kinderhookian	4,276
Carmed (1949)	28-21-16W	2,300	382,530	396,258	45	Arbuckle	3,877
Cro (1953)	9-20-19W	260	39,186	39,186	5	Penn. congl.	4,204
Cro West (1953)	8-20-19W	40	2,124	2,124	1	Penn. congl.	4,124
Pawnee Rock* (1936)	13-20-16W	3,000	356,278	3,355,959	60	Arbuckle	3,832
Rutherford (1946)	8-20-16W	300	16,924	266,035	6	Arbuckle	3,815
Ryans (1945)	35-19-16W	460	41,263	484,678	10	Arbuckle	3,656
Ryan Southeast (1945)	12-20-16W	300	15,722	302,485	9	Arbuckle	3,688
Shady (1948)	35-22-16W		no runs	6,038	2	Arbuckle	4,067
Shady Southwest (1953)	3-23-16W	40	1,058	1,058	1	Lans.-K.C.	3,705
Zook (1942)	16-23-16W		no report	7,016		Arbuckle	4,066
Total Pawnee County		9,500	1,110,321	5,742,667	178		
PHILLIPS COUNTY							
Beckman (1951)	3-4-19W	40	1,984	5,281	1	Lans.-K.C.	3,201

TABLE 56.—*Oil production in Kansas during 1953, continued*

Pool or field name and year of discovery	Location of discovery well	Area, acres	1953 production, bbls.	Cumulative production to end of 1953, bbls.	No. producing wells	Producing zone	Dep to duc zon fee
Bow Creek (1939)	25-5-18W	120	5,430	67,517	3	Lans.-K.C.	3,
Dayton (1941)	36-2-19W	1,540	52,400	1,057,392	17	Lans.-K.C.	3,
Fredericksburg (1952)	4-1-18W	40	3,032	6,299	1	Lans.-K.C.	3,
Glenwood (1951)	21-1-17W	40	5,075	12,710	1	Lans.-K.C.	3,
Hanson (1943)	14-5-20W	980	214,220	2,159,046	34	Lans.-K.C.	3,
						Arbuckle	3,
Hanson West (1952)	15-5-20W	40	9,983	10,441	1	Arbuckle	3,
Huffstutter (1949)	6-2-18W	3,600	415,757	2,645,557	134	Lans.-K.C.	3,
Huffstutter Southwest (1951)	23-2-19W	200	38,642	69,242	5	Lans.-K.C.	3,
Kent (1951)	22-1-18W		no report	1,472		Lans.-K.C.	3,
Logan (1945)	3-5-20W	420	31,946	378,729	12	Lans.-K.C.	3,
						Arbuckle	3,
Rays (1940)	32-5-20W	4,000	1,301,874	15,657,803	147	Lans.-K.C.	3,
						Arbuckle	3,
						Reagan	3,
Slinker (1951)	25-4-20W	200	27,076	59,656	5	Lans.-K.C.	3,
Stuttgart (1950)	14-3-19W	600	51,720	186,946	12	Lans.-K.C.	3,
Stuttgart South (1951)	23-3-19W	40	3,517	13,288	1	Lans.-K.C.	3,
Pools or fields abandoned				1,596			
Total Phillips County		11,860	2,162,656	22,332,975	374		
			PRATT COUNTY				
Blowout (1952)	8-27-13W	40	2,467	4,234	1	Lans.-K.C.	3,9
Chance (1946)	4-27-13W	1,580	136,282	2,118,256	16	Mississippian	4,2
			17,288		2	Simpson	4,3
			160,434		21	Arbuckle	4,4
			292,695		35	Viola	4,2
Chance East (1952)	34-26-13W	160	4,924	44,984	1	Mississippian	4,1
			25,281		3	Viola	4,2
Chitwood (1943)	23-28-12W	1,580	4,095	7,357,568	1	Lans.-K.C.	
			33,770		12	Viola	
			368,458		50	Simpson	4,3
			19,013		6	Arbuckle	
Chitwood Northeast (1950)	13-28-12W		no report	3,678		Viola	4,3
Clara* (1948)	36-29-14W	140	14,991	163,637	5	Simpson	4,4
Coats (1944)	24-29-14W	400	15,429	400,285	8	Simpson	4,4
						Arbuckle	
Cunningham* (1931)	7-28-11W	3,300	115,304	4,616,586	71	Lans.-K.C.	3,3
Fitzsimmons (1953)	30-27-13W	120	17,051	17,051	3	Lans.-K.C.	4,0
Frisbie (1943)	5-26-13W	400	16,750	339,553	5	Lans.-K.C.	3,9
Frisbie East (1953)	4-26-13W	Combined with Frisbie Northeast					
Frisbie Northeast (1948)	4-26-13W	340	32,136	167,928	12	Lans.-K.C.	3,7
						Simpson	4,2
Gereke (1953)	12-26-15W	40	2,210	2,210	1	Viola	4,3
Hertlein (1953)	22-28-13W	40	307	307	1	Lans.-K.C.	3,9
Iuka-Carmi (1937)	11-27-13W	8,500	53,224	13,734,141	19	Lans.-K.C.	4,1
			30,975		5	Viola	4,1
			971,716		144	Simpson	4,2
			260,386		56	Arbuckle	4,3
Iuka-Carmi Northwest(1953)	26-26-13W	80	4,700	4,700	2	Viola	4,2
						Arbuckle	4,3
Iuka-Carmi South (1953)	19-27-12W	Combined with Iuka-Carmi					
Jarboe (1952)	25-26-14W	40	930	1,056	1	Lans.-K.C.	3,8
Lion (1953)	29-27-11W		no report	none		Viola	4,3
Ludwick (1944)	4-29-13W	40	868	30,523	1	Simpson	4,4
Moore (1949)	1-26-14W	120	19,946	49,842	3	Viola	4,2
						Simpson	4,3
Moore Southwest (1953)	11-26-14W	400	1,747	19,074	1	Lans.-K.C.	3,8
			11,450		5	Kinderhookian	4,2
			5,877		1	Simpson	4,3
Shriver (1944)	33-29-14W	400	62,362	678,136	7	Simpson	4,5

Stark (1941)	18-26-11W	300	7,145	848,959	6	Lans.-K.C.	3,601
						Viola	4,121
Stoops (1946)	7-29-12W	80	2,814	87,754	2	Viola	4,446
Stoops Southwest (1946)	24-29-13W	40	1,084	15,312	1	Viola	4,483
Total Pratt County		18,140	2,714,109	30,705,774	508		
			RENO COUNTY				
Abbyville (1927)	24-24-8W	1,040	21,442	852,575	15	Lans.-K.C.	3,540
Albion (1948)	14-26-6W	100	1,723	25,492	3	Lans.-K.C.	3,342
						"Chat"	3,654
Albion North (1950)	14-26-6W		no runs	767	1	Viola	3,997
Bacon (1953)	36-23-5W	40	2,141	2,141	1	Mississippian	3,382
Bahler (1938)	25-22-5W	1,000	146,992	1,007,706	15	Viola	3,890
						Simpson	3,897
Burrtone (1931)	1-23-4W	11,000	786,688	48,168,687	326	Mississippian	3,266
		Includes Harvey County production				"Hunton"	3,583
Haven (1951)	9-25-4W	80	6,345	13,742	2	Simpson	3,977
Hilger (1934)	16-26-4W	900	63,379	4,704,110	15	Viola	4,062
Huddis (1952)	26-23-10W		Abandoned during 1953			Lans.-K.C.	3,299
Kerade Southwest (1944)	21-26-9W	40	3,919	130,509	1	Viola	4,177
Burton (1942)	17-24-8W	40	2,490	42,689	1	Lans.-K.C.	3,180
Burton Southeast (1951)	16-24-8W	40	2,303	7,030	1	Lans.-K.C.	3,423
Nicolaus (1952)	3-26-4W	80	20,679	21,689	2	Lans.-K.C.	3,249
Nickey (1951)	22-22-10W	80	6,638	22,064	2	Lans.-K.C.	3,187
Nickey Southwest (1952)	21-22-10W	40	769	7,451	1	Viola	3,548
Sterling* (1951)	4-22-8W		no report	none		Mississippian	3,385
Tyler (1935)	34-24-5W		no runs	93,285	3	"Chat"	3,450
Zenith-Peace Creek* (1941)	21-23-10W	8,500	241,331	17,860,339	117	Viola	3,773
Fools or fields abandoned				2,590,055			
Total Reno County		22,980	1,306,839	75,550,331	506		
			RICE COUNTY				
Bell (1953)	9-21-10W	160	25,491	25,491	4	Arbuckle	3,391
Bingham (1952)	35-19-9W	80	3,337	8,308	2	Arbuckle	3,332
Bloomer* (1936)	36-17-11W	1,500	748,613	13,790,459	79	Lans.-K.C.	3,044
						Arbuckle	3,257
Bornholdt (1937)	30-20-5W	Now called Welch-Bornholdt					
Bowman North (1948)	16-19-10W		no runs	13,629	1	Arbuckle	3,331
Brodfeldt (1948)	7-18-9W	120	5,914	83,306	3	Arbuckle	3,226
Brodfeldt West (1939)	12-18-10W	40	93	60,191	1	Arbuckle	3,260
Calf Creek (1950)	28-18-10W	200	32,072	106,144	5	Pre-Cambrian	3,143
Calf Creek North (1952)	28-18-10W	40	3,779	5,230	1	Arbuckle	3,248
Chase-Silica* (1931)	32-19-9W	34,000	3,122,964	96,576,275	758	Lans.-K.C.	2,942
						"Wilcox"	3,260
						Arbuckle	3,252
Chick (1952)	3-18-7W	40	120	5,938	1	Lans.-K.C.	3,050
Chick Southeast (1947)	11-18-7W	80	8,723	36,242	2	Lans.-K.C.	3,065
Crawford (1953)	12-18-7W	40	1,554	1,554	1	Penn. congl.	3,194
Edwards* (1936)	3-18-8W	Now called Geneseo-Edwards					
Engelland (1949)	34-20-7W	40	1,153	9,244	1	Conglomerate	3,348
Fair (1952)	15-21-10W	40	1,246	2,916	1	Penn. congl.	3,358
Farmer (1952)	24-18-10W	500	94,235	119,609	17	Arbuckle	3,222
Frederick (1951)	10-18-9W	40	4,354	16,462	1	Penn. congl.	3,213
Galt (1952)	8-18-7W	200	22,533	45,227	5	Arbuckle	3,193
Geminhardt (1948)	18-18-10W	Combined with Roesler					
Geneseo (1934)	25-18-8W	Now called Geneseo-Edwards					
Geneseo-Edwards* (1934)	25-18-8W	6,600	1,963,488	34,470,758	270	Lans.-K.C.	2,787
						Penn. congl.	3,222
						Arbuckle	3,132
Glen Sharrald (1950)	20-18-10W	120	4,139	27,299	3	Lans.-K.C.	3,118
Green (1953)	14-19-6W	40	618	618	1	Mississippian	3,388
Haims (1938)	8-18-10W	300	18,706	296,698	7	Lans.-K.C.	3,000
						Arbuckle	3,254
Hall (1950)	4-19-10W	700	13,930	125,953	2	Lans.-K.C.	3,068
			58,079		8	Arbuckle	3,308
Heller (1943)	3-19-9W	40	608	42,983	1	Sooy	3,240

TABLE 56.—*Oil production in Kansas during 1953, continued*

Pool or field name and year of discovery	Location of discovery well	Area, acres	1953 production, bbls.	Cumulative production to end of 1953, bbls.	No. producing wells	Producing zone	Depth to producing zone, feet
Lyons (1949)	14-20-8W	40	2,099	69,680	1	Lans.-K.C.	3,22
						Arbuckle	3,27
						"Kisener"	3,31
						Penn. congl.	
Mary Ida* (1950)	31-18-10W	640	123,449	377,724	16	Lans.-K.C.	3,03
						Arbuckle	3,27
Munyon (1950)	34-18-10W	120	8,769	36,866	3	Sooy	3,27
						Arbuckle	3,27
Munyon East (1953)	34-18-10W	80	3,695	3,695	2	Arbuckle	3,27
Munyon South (1951)	3-19-10W	200	20,144	49,358	5	Arbuckle	3,30
Odessa (1949)	32-18-6W	400	61,110	232,287	11	Lans.-K.C.	3,09
Odessa South (1949)	9-19-6W	120	12,175	35,120	3	Lans.-K.C.	3,06
Orth (1932)	27-18-10W	1,600	173,628	2,690,174	55	Shawnee	
						Lans.-K.C.	2,91
						Sooy	3,18
						Pre-Cambrian	3,21
Orth West (1944)	21-18-10W	600	75,301	557,501	17	Shawnee	2,66
						Arbuckle	3,23
Ponce (1936)	28-21-7W	40	2,159	63,023	1	Sooy	3,38
Prosper (1948)	6-18-9W	40	800	10,256	1	Arbuckle	3,23
Prosper East (1950)	5-18-9W	200	34,037	151,273	5	Arbuckle	3,22
Raymond (1929)	21-20-10W	2,800	263,916	13,588,883	83	Wabaunsee	2,28
						Lans.-K.C.	3,13
						Arbuckle	3,33
Rick* (1936)	1-19-11W	40	2,675	54,585	1	Lans.-K.C.	3,10
						Arbuckle	3,35
Rick Southeast (1947)	18-19-10W	100	13,393	80,470	3	Lans.-K.C.	3,02
						Arbuckle	3,33
Rickard (1935)	22-18-9W	200	4,727	193,479	4	Arbuckle	3,32
Ringwald (1949)	32-18-10W	500	74,424	413,695	9	Lans.-K.C.	2,94
			23,509		4	Pre-Cambrian	3,07
Roesler* (1943)	14-18-11W	400	35,698	97,879	6	Arbuckle	3,29
Schulz (1952)	15-18-10W		Abandoned during 1953			Arbuckle	3,50
Silica South* (1935)	24-20-11W	460	117,176	1,235,899	16	Lans.-K.C.	3,03
						Arbuckle	3,26
Smyres (1942)	36-19-6W	Combined with Welch-Bornholdt					
Staatz (1953)	15-18-9W	40	2,192	2,192	1	Penn. congl.	3,24
Sterling* (1951)	4-22-8W	80	10,933	11,692	2	Mississippian	3,38
Union East (1950)	27-20-8W	280	11,101	51,418	7	Sooy congl.	3,30
Volkland (1945)	27-18-9W	400	34,536	673,378	7	Arbuckle	3,22
Welch (1924)	35-20-6W	Now called Welch-Bornholdt					
Welch-Bornholdt* (1924)	35-20-6W	5,000	975,242	11,961,768	209	"Chat"	3,370
Welch East (1941)	1-21-6W	Combined with Welch-Bornholdt					
Welch North (1937)	23-20-6W	120	6,133	107,810	3	"Chat"	3,334
Welch West (1948)	6-21-6W	Combined with Welch-Bornholdt					
Wherry (1933)	11-21-7W	7,000	177,984	11,350,071	68	Sooy	3,358
Wherry North (1947)	35-20-7W	1,000	70,798	510,816	16	Sooy	3,423
Zink* (1950)	13-18-11W	Combined with Roesler					
Pools or fields abandoned				284,228			
Total Rice County		67,420	8,477,552	190,765,754	1,734		
			ROOKS COUNTY				
Allphin (1953)	33-10-20W	40	6,741	6,741	1	Arbuckle	3,729
Amboy (1950)	16-10-20W	160	8,946	62,925	4	Arbuckle	3,813
Annon (1951)	27-10-20W	120	21,226	52,914	3	Arbuckle	3,711
Barry (1942)	11-9-19W	1,840	126,351	6,625,266	16	Lans.-K.C.	
			447,699		54	Arbuckle	3,435
Barry East (1947)	6-9-18W	400	2,741	553,151	1	Lans.-K.C.	3,280
			68,094		9	Arbuckle	3,489
Barry Southeast (1946)	13-9-19W	680	155,531	1,479,856	25	Arbuckle	3,479

Bartos (1952)	15-9-19W		Abandoned during 1953			Arbuckle	3,544
Bassett (1951)	20-10-20W	40	738	2,720	1	Arbuckle	3,749
Bassett Southwest (1952)	29-10-20W	Combined with Laura Southeast					
Bess (1942)	10-10-16W	40	1,595	20,743	1	Lans.-K.C.	3,057
Baumgarten (1950)	25-9-19W	1,800	113,986	194,751	19	Lans.-K.C.	3,401
						Arbuckle	3,621
Baumgarten Northeast (1952)	30-9-18W	Combined with Baumgarten					
Belmont (1949)	28-7-19W	40	1,944	11,245	1	Lans.-K.C.	3,337
Berland East (1953)	20-10-19W	no report		none		Arbuckle	3,778
Berland South (1951)	31-10-19W	no report		16,854		Lans.-K.C.	3,480
Berland Southeast (1953)	29-10-19W	40	961	961	1	Arbuckle	3,755
Berland Southwest (1949)	26-10-20W	440	48,090	232,903	12	Arbuckle	3,728
Brungardt* (1952)	35-10-17W	500	77,404	90,689	12	Lans.-K.C.	3,194
						Penn. congl.	3,449
						Arbuckle	3,644
Brungardt Northwest (1953)	34-10-17W	40	682	682	1	Arbuckle	3,477
Burnett* (1937)	1-11-18W	680	136,825	1,311,115	23	Lans.-K.C.	3,093
						Arbuckle	3,570
Burnett Northwest* (1946)	3-11-18W	240	39,070	368,610	6	Lans.-K.C.	3,450
						Arbuckle	3,617
Chandler West (1951)	15-9-19W	40	2,129	5,311	1	"Dodge" (Shawnee)	3,248
Colby (1953)	27-10-17W	40	1,462	1,462	1	Lans.-K.C.	3,384
Dancer (1952)	4-8-17W	40	2,729	7,404	1	Lans.-K.C.	3,140
Dopita (1934)	31-8-17W	700	74,463	946,852	20	Lans.-K.C.	3,212
						Arbuckle	3,409
Dopita East (1952)	29-8-17W	120	9,339	11,880	3	Lans.-K.C.	3,304
						Arbuckle	3,421
Dorr (1942)	20-9-16W	700	84,039	772,656	20	Lans.-K.C.	3,230
Dorr South (1953)	20-9-16W	40	1,833	1,833	1	Toronto	3,178
Elk Creek (1951)	19-8-17W	720	93,076	130,905	17	Arbuckle	3,400
Ervay (1941)	2-10-16W	Combined with Kruse				Lans.-K.C.	3,136
Fehrel (1952)	16-10-19W	80	14,972	20,117	2	Lans.-K.C.	3,480
Finney (1947)	14-10-18W	80	4,870	27,699	2	Lans.-K.C.	3,419
Genoung (1953)	31-9-17W	80	5,728	9,981	1	Lans.-K.C.	3,281
			4,253		1	Penn. congl.	3,524
Gick (1947)	30-9-19W	240	47,138	170,118	6	Arbuckle	3,578
Gra-Rook (1948)	30-9-20W	800	226,310	824,042	20	Penn. congl.	3,810
						Arbuckle	3,869
Grower (1950)	22-7-19W	400	32,207	92,364	9	Lans.-K.C.	3,272
						Arbuckle	3,408
Hayden (1949)	31-8-19W	360	82,546	431,677	13	Lans.-K.C.	3,289
						Arbuckle	3,513
Hillside (1952)	12-8-20W	40	3,344	7,508	1	Shawnee	3,206
Jelinek (1947)	23-9-19W	1,500	18,170	2,747,610	2	Shawnee	3,220
			511,901		64	Arbuckle	3,537
Kerr (1950)	28-9-20W	200	44,717	188,377	5	Arbuckle	3,855
Kragero (1948)	35-10-16W	340	78,581	350,754	11	Lans.-K.C.	3,552
						Arbuckle	
Kruse (1951)	3-10-16W	440	60,613	167,730#	11	Lans.-K.C.	3,094
Kruse Northwest (1953)	34-9-16W	80	4,611	4,611	2	Lans.-K.C.	3,200
Laton (1927)	11-9-16W	4,100	167,046	4,278,522	102	Lans.-K.C.	3,228
Laura (1950)	30-10-20W	40	5,649	22,153	1	Arbuckle	3,706
Laura Southeast (1952)	30-10-20W	600	64,462	69,292	10	Arbuckle	3,667
						Lans.-K.C.	3,543
Locust Grove (1949)	8-7-19W	40	2,958	19,027	1	Arbuckle	3,450
Locust Grove Southeast(1951)	9-7-19W	no report		4,525		Arbuckle	3,400
Lone Star (1948)	4-8-17W	640	86,977	151,123	13	Arbuckle	3,382
Lone Star Southwest (1951)	8-8-17W	80	5,781	15,830	2	Arbuckle	3,299
Lynd (1951)	32-9-19W	360	59,474	173,734	10	Arbuckle	3,750
Lynd Southeast (1953)	4-10-19W	Combined with Lynd					
Lynd Southwest (1952)	5-10-19W	40	2,263	3,736	1	Arbuckle	3,759
McClellan (1945)	9-9-19W	40	2,616	58,713	1	Lans.-K.C.	3,343
McHale (1948)	8-9-18W	400	46,614	345,960	10	Lans.-K.C.	3,436
						Arbuckle	3,494
McHale South (1949)	17-9-18W	no report		4,663		Arbuckle	3,615
Macmillen (1952)	33-8-17W	Abandoned during 1953				Arbuckle	3,454
Marc (1948)	18-9-19W	80	1,549	16,465	2	Lans.-K.C.	3,370
Marcotte (1943)	15-10-20W	6,100	173,670	7,744,641	22	Lans.-K.C.	3,596
			1,646,477		203	Arbuckle	3,752

TABLE 56.—*Oil production in Kansas during 1953, continued*

Pool or field name and year of discovery	Location of discovery well	Area, acres	1953 production, bbls.	Cumulative production to end of 1953, bbls.	No. producing wells	Producing zone	Depth to producing zone, feet
Larcotte North (1950)	31-9-19W	200	25,310	75,929	5	Arbuckle	3,770
Larcotte Northwest (1950)	9-10-20W	Combined with Larcotte					
Larcotte South (1951)	22-10-20W	40	9,126	27,295	1	Arbuckle	3,719
Larcotte Southwest (1951)	21-10-20W	160	24,882	36,954	4	Arbuckle	3,743
Laythew (1951)	24-9-19W	80	6,395	16,176	2	Arbuckle	3,613
Medicine Creek (1952)	18-8-16W	120	6,952	14,687	3	Lans.-K.C.	3,054
Mt. Ayr (1952)	13-10-16W	120	3,198	5,275	3	Lans.-K.C.	3,554
						Penn. congl.	3,548
Nettie (1948)	34-9-17W	880	203,567	574,264	31	Lans.-K.C.	3,243
						Simpson	3,499
						Arbuckle	3,513
Northampton (1940)	26-9-20W	1,200	358,710	2,303,799	44	Arbuckle	3,603
Northampton Southeast (1953)	35-9-20W	40	2,512	2,512	1	Arbuckle	3,775
Nyra (1946)	16-9-17W	360	17,382	165,091	10	Lans.-K.C.	3,429
						Arbuckle	3,501
Palco (1943)	5-10-20W	1,000	295,636	1,778,240	42	Arbuckle	3,624
Palco Southeast (1949)	3-10-20W	600	89,090	386,388	12	Lans.-K.C.	3,728
						Arbuckle	3,827
Palco Southwest (1951)	7-10-20W	160	25,061	61,857	4	Arbuckle	3,858
Palco Townsite (1945)	20-9-20W	80	4,144	29,068	2	Arbuckle	3,847
Paradise Creek (1947)	21-9-18W	1,100	14,842	1,944,165	6	Lans.-K.C.	3,430
			210,656		29	Arbuckle	3,576
Paradise Creek West (1953)	20-9-18W	80	4,388	4,388	2	Arbuckle	3,594
Plainville (1948)	31-9-17W	80	4,525	20,691	2	Lans.-K.C.	3,477
						Arbuckle	3,613
Ray Southeast (1942)	9-6-20W	40	3,221	79,131	1	Reagan	3,600
Riffe (1951)	4-7-19W	120	10,775	23,745	3	Lans.-K.C.	3,230
Slate (1951)	31-6-19W	120	8,340	14,086	3	Lans.-K.C.	3,291
						Arbuckle	3,545
Stamper (1950)	28-8-17W		no report	910		Marmaton	3,334
Stockton (1937)	35-7-17W	380	15,094	137,093	8	Shawnee	2,692
						Lans.-K.C.	3,180
Sweet (1951)	18-8-18W		no report	4,738		Arbuckle	3,423
Vohs (1945)	14-10-19W	900	197,544	1,762,993	21	Lans.-K.C.	3,365
Vohs Northwest (1947)	9-10-19W	80	21,157	98,137	2	Lans.-K.C.	3,446
						Arbuckle	3,736
Vohs South (1947)	23-10-19W		no report	12,524		Lans.-K.C.	3,303
Webster (1946)	27-8-19W	1,800	217,639	2,263,552	54	Arbuckle	3,603
Westhusin (1936)	11-9-17W	1,500	145,013	2,093,251	38	Lans.-K.C.	3,231
						Arbuckle	3,408
Whisman (1950)	9-9-20W		no report	none		Lans.-K.C.	3,427
Williams (1953)	9-10-18W	240	23,773	59,341	6	Lans.-K.C.	3,459
			2,764			Simpson	3,717
			32,804			Arbuckle	3,733
Williams Northwest (1953)	6-10-18W	40	4,508	4,508	1	Lans.-K.C.	3,409
Williams Southeast (1953)	16-10-18W	40	1,742	1,742	1	Lans.-K.C.	3,444
Yohe (1949)	4-9-18W	40	3,789	36,575	1	Lans.-K.C.	3,266
Zurich (1935)	26-10-19W	700	33,279	352,319	8	Shawnee	3,087
						Lans.-K.C.	3,340
Zurich Southwest (1952)	34-10-19W	40	6,780	7,274	1	Lans.-K.C.	3,385
Zurich Townsite (1944)	27-9-19W	360	48,022	394,505	8	Arbuckle	3,647
Pools or fields abandoned				145,112			
Total Rooks County		39,360	7,016,581	45,799,716	1,141		
			RUSH COUNTY				
Big Timber (1952)	5-16-18W		Abandoned during 1953			Arbuckle	3,613
Chilly Knob (1953)	18-19-17W		no report	none		Arbuckle	3,928
Hungry Hollow (1951)	6-16-17W		no runs	2,429	1	Lans.-K.C.	3,344
Otis-Alberta (1934)	10-18-16W	2,160	81,686	4,812,558	34	Reagan	3,527
Rush Center (1947)	16-18-18W	500	50,143	61,016	7	Arbuckle	3,836

Ryan* (1945)	35-19-16W	2,400	133,717	1,742,445	68	Arbuckle	3,656
Bergman (1952)	11-16-17W		Abandoned during 1953			Lans.-K.C.	3,376
Timken (1952)	28-18-17W	40	248	1,297	1	Arbuckle	3,729
Peitzel (1947)	1-16-20W	40	2,506	38,586	1	Gorham	3,674
Pools or fields abandoned				60,590			
Total Rush County		5,140	268,300	6,713,921	112		

RUSSELL COUNTY

Atherton (1935)	30-13-14W	2,400	295,590	3,113,159	64	Arbuckle	3,234
Atherton North (1945)	7-13-14W	40	5,090	71,856	1	Arbuckle	3,195
Beaver North* (1937)	4-16-12W	40	4,341	63,366	1	Arbuckle	3,316
Bissel (1944)	15-14-12W		no report	18,617		Arbuckle	3,266
Bomberger (1935)	36-15-15W	160	4,055	231,984	3	Lans.-K.C.	3,147
Claassen (1944)	27-12-14W	200	25,128	66,428	5	Lans.-K.C.	2,855
Claassen North (1949)	22-12-14W	40	no runs	9,730	1	Lans.-K.C.	2,956
Claassen West (1949)	29-12-14W		no report	1,217		Lans.-K.C.	2,841
Coal Creek (1951)	22-15-11W		no report	none		Penn. congl.	3,178
Cook (1950)	26-13-15W	200	10,013	65,382	5	Lans.-K.C.	3,051
						Arbuckle	3,314
Davidson* (1930)	4-16-11W	160	9,202	206,642	4	Lans.-K.C.	3,016
						Sooy	3,317
						Arbuckle	3,314
Dillner Northwest (1947)	27-13-15W		no runs	9,640	1	Arbuckle	3,318
Dorman (1935)	10-15-15W	120	8,577	228,750	3	Lans.-K.C.	3,193
Duque (1935)	34-15-12W	750	81,353	1,037,654	19	Lans.-K.C.	3,275
						Arbuckle	3,330
Gilbert (1949)	35-11-15W	540	147,964	690,637	17	Arbuckle	3,316
Fairport* (1923)	8-12-15W	4,000	591,908	21,942,735	159	Lans.-K.C.	2,950
						Sooy	3,137
						Gorham	3,211
						Arbuckle	3,312
						Simpson	3,316
						Reagan	3,350
Fay (1952)	2-12-15W	40	5,106	6,749	1	Arbuckle	3,238
Fossil Creek (1953)	11-14-14W		no report	none		"Langdon"	2,341
German (1926)	32-13-15W	15,800	1,794,426	55,775,528	442	Shawnee	2,765
						Lans.-K.C.	2,908
						Gorham	3,152
						Arbuckle	3,289
						Reagan	3,299
Hall-Gurney (1931)	30-14-13W	27,900	4,365,021	59,187,260	1,143	Tarkio	1,985
						Wabaunsee	2,400
						Topeka	2,675
						Oread	2,813
						Lans.-K.C.	2,095
						Gorham	3,165
						Arbuckle	3,192
						Pre-Cambrian	3,156
Hess (1953)	21-14-12W	40	2,143	2,143	1	Penn. congl.	3,189
Hume (1943)	24-15-12W	300	15,947	222,838	5	Lans.-K.C.	
						Arbuckle	3,319
Jerry (1942)	4-15-14W	40	2,129	60,516	1	Wabaunsee	
						Lans.-K.C.	2,985
						Arbuckle	
Kaufman* (1947)	33-15-12W	Combined with Beaver North				Arbuckle	3,311
Keller (1948)	30-15-12W	60	17,407	134,268	3	Arbuckle	3,325
Kay (1948)	31-15-12W	240	37,646	211,499	5	Lans.-K.C.	3,240
						Arbuckle	3,350
Parker (1948)	18-15-12W	340	29,400	264,298	7	Shawnee	2,957
						Arbuckle	3,259
Russell (1934)	22-13-14W	2,940	605,905	10,323,204	110	Lans.-K.C.	3,195
						Arbuckle	3,280
Russell East (1949)	25-13-14W	100	3,903	30,310	3	Arbuckle	3,273
Strecker (1943)	21-15-14W	100	1,807	51,091	2	Arbuckle	3,342
Trapp (1936)	23-15-14W	23,200	4,513,350	92,491,628	878	Tarkio	2,359
						Shawnee	2,889
						Dodge	2,966
						Lans.-K.C.	3,062
						Arbuckle	3,252

TABLE 56.—*Oil production in Kansas during 1953, continued*

Pool or field name and year of discovery	Location of discovery well	Area, acres	1953 production, bbls.	Cumulative production to end of 1953, bbls.	No. producing wells	Producing zone	Depth to producing zone, feet
Trapp East (1949)	14-15-13W	80	5,713	44,983	2	Lans.-K.C.	3,146
						Arbuckle	3,277
Pools or fields abandoned				352,292			
Total Russell County		79,830	12,583,124	246,916,454	2,886		
			SALINE COUNTY				
Bachofer (1951)	15-15-2W	160	9,438	26,203	4	Mississippian	2,799
Gypsum Creek* (1944)	4-17-1W	720	105,527	117,559	16	Mississippian	2,619
Gypsum Creek North (1952)	33-16-1W	Combined with Gypsum Creek				Mississippian	2,594
Holm (1951)	32-16-3W	Combined with Salemsborg					
Holm North (1952)	20-16-3W	Combined with Salemsborg					
Holm Southeast (1952)	32-16-3W	Combined with Salemsborg					
Hunter (1943)	20-16-1W	840	58,945	1,107,344	19	"Chat"	2,631
Hunter North (1948)	8-16-1W	300	40,256	180,839	7	"Miss. lime"	2,674
Lentor (1944)	13-15-3W	120	5,782	31,430	3	Viola	3,258
Olsson (1929)	10-16-3W	1,000	52,603	467,645#	17	Viola	3,303
Salemsborg (1952)	5-16-3W	4,200	253,398	302,935	53	Viola	3,381
Salemsborg North (1953)	32-15-3W	Combined with Salemsborg					
Salemsborg Northeast (1953)	5-16-3W	Combined with Salemsborg					
Salemsborg South (1953)	8-16-3W	Combined with Salemsborg					
Salina (1943)	30-14-2W	1,400	60,458	898,782	22	Viola	3,223
Salina South (1946)	32-14-2W	300	18,150	159,589	7	Viola	3,246
Smolan (1950)	19-15-3W	3,400	908,343	2,005,111	111	Viola	3,386
Swenson (1950)	34-15-3W	80	4,170	22,740#	2	Viola	3,353
Pools or fields abandoned				11,285			
Total Saline County		12,520	1,517,070	5,331,462	261		
			SCOTT COUNTY				
Keystone (1950)	25-18-32W	120	38,924	99,510	3	Lans.-K.C.	4,001
Shallow Water (1935)	15-20-33W	900	24,711	1,846,566	8	Marmaton	4,286
						"Miss. lime"	4,660
						Ste. Genevieve	4,670
Total Scott County		1,020	63,635	1,946,076	11		
			SEDGWICK COUNTY				
Bartholomew* (1948)	30-27-4W	1,700	355,434	1,736,419	61	"Miss. lime"	3,732
Butwick* (1949)	7-26-3E		See Butler County	1,939		Mississippian	2,860
Chambers (1948)	10-29-2W	120	10,434	53,025	3	"Miss. lime"	3,540
Clearwater (1944)	22-29-2W	200	11,174	117,251	5	Lans.-K.C.	2,913
Cottage (1953)	19-25-2E	40	249	249	1	"Burgess"	3,004
Crestview (1952)	1-27-1E		no report	none		"Burgess"	2,982
Cross (1929)	27-25-1W	40	2,338	84,594	1	Lans.-K.C.	2,690
Curry (1947)	11-27-1W	440	59,595	461,150	15	Lans.-K.C.	2,715
						Simpson	3,400
Eastborough (1929)	19-27-2E	960	49,570	8,929,277	29	"Chat"	2,956
						Viola	3,238
Eastborough North (1952)	8-27-2E	40	6,414	16,753	1	Arbuckle	3,376
Fairview (1948)	8-26-2E	560	49,752	298,368	8	Lans.-K.C.	2,500
						"Burgess"	2,960
						Mississippian	2,991
Fairview North (1948)	5-26-2E	80	11,165	107,848	2	"Burgess"	2,971
Fairview South (1950)	17-26-2E	40	1,173	10,553	1	"Burgess"	2,945
Gehring-Rick (1952)	16-28-2E	80	3,169	4,674	2	Mississippian	2,950
Goodrich (1928)	16-25-1E	780	71,566	4,719,173	25	Lans.-K.C.	2,614
						"Chat"	3,010
						Kinderhookian	3,334
						Arbuckle	3,339

Greenwich (1929)	14-26-2E	700	106,798	11,535,257	25	"Chat"	2,885
						Viola	3,321
Hinkle (1946)	1-27-1E		no report	10,153		"Burgess"	2,930
Hohn (1945)	22-27-1W	160	11,390	108,403	4	Lans.-K.C.	2,779
Huske North (1951)	13-25-1E	500	53,794	73,361	15	"Burgess"	3,016
Koening (1951)	33-26-2E	80	3,878	9,425	2	Simpson	3,338
Minneha (1951)	11-27-2E		no runs	8,449	1	Arbuckle	3,247
Minneha Northwest (1951)	10-27-2E		no report	2,798		Simpson	3,300
Petrie (1945)	36-26-1W	40	9,047	101,237	1	Viola	3,387
Petrie Northwest (1951)	35-26-1W	40	9,838	30,720	1	Viola	3,445
Prairie Creek (1952)	25-25-2E	40	174	350	1	Mississippian	2,812
Robbins (1929)	20-28-1E	860	122,091	4,054,600	43	"Miss. lime"	3,090
Schulte (1947)	7-28-1W	200	3,721	194,294	5	Mississippian	3,349
						Simpson	3,658
Valley Center (1928)	1-26-1W	1,700	65,909	22,029,604	31	Lans.-K.C.	2,860
						Kinderhookian	3,380
						Viola	3,366
White Cotton (1948)	30-26-2E	680	54,905	468,842	16	"Burgess"	2,957
Pools or fields abandoned				216,421			
Total Sedgwick County		10,080	1,073,578	55,385,187	299		

SEWARD COUNTY

Kismet (1948)	23-33-31W		no report	16,103		Marmaton	5,095
Kismet South (1952)	26-33-31W	40	6,538	13,579	1	Mississippian	5,770
Liberal (1951)	23-34-31W	40	949	3,990	1	Marmaton	5,332
Liberal-Light (1951)	11-35-32W	2,000	35,580	98,949	6	Lans.-K.C.	5,103
						Morrowan	6,005
Liberal Southeast (1947)	15-35-33W	120	6,727	68,534	3	Penn.sandstone	6,202
Liberal-White (1952)	35-34-32W	Combined with Liberal-Light					
Total Seward County		2,200	49,794	201,155	11		

SHERIDAN COUNTY

Adell (1944)	11-6-27W	1,200	308,901	2,974,334	38	Lans.-K.C.	3,755
George (1952)	17-9-26W	80	14,829	21,133	2	Lans.-K.C.	4,023
Hertenville (1953)	20-6-26W	80	8,154	8,154	2	Lans.-K.C.	3,789
Moss (1952)	2-8-30W	40	310	649	1	Lans.-K.C.	4,033
Studley (1943)	23-8-26W	340	16,810	396,463	6	Lans.-K.C.	3,810
Studley Southwest (1945)	32-8-26W	40	10,298	53,381	1	Lans.-K.C.	3,758
Wessel (1953)	27-6-29W	500	21,920	21,920	8	Lans.-K.C.	3,985
Wessel North (1953)	16-6-29W	40	501	501	1	Lans.-K.C.	4,081
Total Sheridan County		2,320	381,093	3,475,905	59		

STAFFORD COUNTY

Ahnert (1941)	26-22-13W	40	1,816	47,473	1	Arbuckle	3,784
Bart-Staff* (1951)	4-21-11W	160	47,979	121,297	4	Arbuckle	3,572
Bayer (1951)	16-21-11W		no report	1,505		Lans.-K.C.	3,543
Bedford (1940)	21-23-12W	900	49,698	1,604,719	16	Arbuckle	3,859
Brock (1944)	12-23-12W	640	12,889	360,417	10	Arbuckle	3,680
Bunselmeyer (1952)	2-22-13W	Combined with Gates					
Byron (1951)	9-21-12W	40	4,121	21,593	1	Arbuckle	3,459
Byron Southeast (1951)	10-21-12W	120	7,516	27,906	3	Arbuckle	3,500
Cephas (1953)	10-25-11W	400	48,446	48,446	12	Viola	4,114
Chase-Silica* (1931)	32-19-9W	400	62,018	237,110	12	Arbuckle	3,383
Cleveland (1953)	21-23-11W	80	2,067	2,067	2	Lans.-K.C.	3,690
Cleveland South (1953)	28-23-11W	40	215	215	1	Lans.-K.C.	3,703
Cochlin (1951)	19-22-11W	80	5,699	19,062	2	Arbuckle	3,659
Crissman (1952)	16-23-11W	320	35,103	85,615	5	Lans.-K.C.	3,664
			24,771		3	Simpson	3,984
			938		1	Arbuckle	4,006
Crissman North (1952)	9-23-11W	40	1,807	1,807	1	Lans.-K.C.	3,669
Curtis (1942)	6-22-13W	1,200	142,843	795,335#	20	Lans.-K.C.	3,514
						Arbuckle	3,693
Curtis South (1951)	12-22-11W	Combined with Curtis					
Curtis West (1952)	12-22-11W	Combined with Smallwood					
Dell (1950)	7-21-13W	160	10,626	88,222	4	Lans.-K.C.	3,446

TABLE 56.—*Oil production in Kansas during 1953, continued*

Pool or field name and year of discovery	Location of discovery well	Area, acres	1953 production, bbls.	Cumulative production to end of 1953, bbls.	No. producing wells	Producing zone	Depth to producing zone, feet
Dell East (1951)	5-21-13W	460	128,815	223,289	16	Lans.-K.C.	3,471
Dell Northeast (1951)	5-21-13W	80	5,022	9,856	2	Lans.-K.C.	3,438
						Arbuckle	3,612
Diamond (1953)	8-22-13W	40	6,966	6,966	1	Lans.-K.C.	3,426
Drach (1937)	12-22-13W	2,700	318,435	5,446,167	53	Arbuckle	3,690
Drach West (1938)	14-22-13W	80	9,491	129,753	2	Arbuckle	
						Lans.-K.C.	3,519
Duggan (1951)	30-21-11W	540	21,204	120,393	8	Lans.-K.C.	3,312
						Penn. congl.	3,479
						Simpson	3,505
						Arbuckle	3,514
Eden Valley (1950)	29-21-13W	Combined with Pundsack					
Farmington (1943)	34-24-15W	940	43,860	1,091,367		Kinderhookian	
						Arbuckle	4,417
Fischer (1938)	31-21-12W	240	20,749	390,507		Arbuckle	3,641
Fischer Northwest (1948)	36-21-13W	1,240	111,465	1,778,157	12	Lans.-K.C.	3,464
			235,620		28	Arbuckle	3,639
Frey (1950)	7-21-14W	700	108,729	453,533	12	Arbuckle	3,717
Gates (1933)	27-21-13W	5,600	597,807	3,523,936	92	Lans.-K.C.	3,530
						Viola	3,635
						Penn. congl.	3,643
						Arbuckle	3,679
Gates South (1949)	3-22-13W	Combined with Gates					
German Valley (1951)	4-22-12W	30	10,282	26,878	2	Arbuckle	3,648
Gray (1946)	11-24-13W	120	3,233	45,665	3	Lans.-K.C.	3,672
Green Ridge (1953)	30-23-14W	40	1,913	1,913	1	Lans.-K.C.	3,788
Green Valley (1953)	2-23-14W	80	10,361	10,361	2	Lans.-K.C.	3,640
Grow (1949)	16-21-13W	640	60,803	345,208	13	Lans.-K.C.	3,463
						Arbuckle	3,705
Grunder (1943)	11-25-15W	40	1,619	23,895	1	Lans.-K.C.	3,945
Hahn (1953)	21-22-13W	40	2,451	2,451	1	Lans.-K.C.	3,610
Happy Valley (1952)	15-23-13W	40	2,135	5,759	1	Arbuckle	3,810
Hart (1949)	36-22-14W		no report	14,204		Arbuckle	3,830
Harter (1950)	30-24-13W	80	5,508	70,459	4	Lans.-K.C.	3,767
						Simpson	4,167
						Arbuckle	3,181
Hazel (1942)	21-21-13W	960	84,940	595,861	26	Arbuckle	3,692
						Lans.-K.C.	3,380
Hazel West (1950)	20-21-13W	1,100	103,054	489,690	24	Arbuckle	3,673
Helene (1952)	16-22-12W	120	13,645	15,917	3	Arbuckle	3,685
Hogen (1943)	24-22-12W	700	27,793	547,367	13	Arbuckle	3,652
Hickman (1951)	27-21-11W	760	149,400	519,571	19	Lans.-K.C.	3,522
			26,479		4	Simpson	
Hickman South (1952)	34-21-11W	40	6,973	9,125	1	Lans.-K.C.	3,567
Hudson (1952)	33-22-12W		no report	none		Lans.-K.C.	3,495
Hurford (1948)	33-21-13W	400	62,592	602,649	8	Lans.-K.C.	3,499
			64,854		8	Arbuckle	3,755
Jordan (1936)	15-25-14W	380	58,060	807,867	9	Lans.-K.C.	3,722
Kachelman (1950)	7-25-13W		no report	1,868		Viola	4,075
Kelly (1948)	35-23-12W		no report	5,204		Arbuckle	3,870
Kenilworth (1947)	15-22-13W	400	43,360	380,456	11	Lans.-K.C.	3,505
						Arbuckle	3,808
Kipp (1937)	27-25-14W	300	4,398	640,319	6	Lans.-K.C.	3,827
Kipp Northeast (1946)	23-25-14W	120	13,531	194,640	3	Lans.-K.C.	3,844
Knoche (1951)	8-24-12W		no runs	992		Viola	3,810
Koelsch (1952)	24-24-14W	400	52,951	57,951	8	Lans.-K.C.	3,750
Koelsch Southeast (1952)	25-24-14W	580	125,109	129,326	17	Simpson	4,181
						Arbuckle	4,187
Kowalsky* (1941)	32-20-11W	80	10,406	19,615	2	Lans.-K.C.	3,279
Kowalsky Southwest (1950)	6-21-11W	240	24,475	122,410	5	Arbuckle	3,424
Leesburgh (1938)	12-25-13W	700	55,773	2,495,608	14	Simpson	4,060
						Arbuckle	4,153

[illegible] (1950)	7-21-13W	80	22,140	58,181	3	Lans.-K.C.	3,475
						Arbuckle	3,636
[illegible] (1951)	29-21-14W	160	35,397	93,076	4	Lans.-K.C.	3,543
[illegible] Northwest (1952)	29-21-14W	80	12,641	13,985	2	Arbuckle	3,778
[illegible]dless (1944)	30-25-13W	340	66,960	731,363	8	Lans.-K.C.	3,863
			58,211		5	Simpson	4,252
[illegible]inty (1950)	13-21-14W	40	1,268	9,748	1	Lans.-K.C.	3,533
[illegible]inty Northwest (1951)	14-21-14W	40	4,721	21,060	1	Lans.-K.C.	3,463
[illegible]rle (1951)	30-21-12W	Combined with Fischer Northwest					
[illegible]r (1938)	35-21-12W	4,490	73,310	5,665,176	16	Lans.-K.C.	3,356
			8,412		1	Simpson	3,915
			564,395		72	Arbuckle	3,570
Max South (1950)	15-22-12W	40	736	7,293	1	Lans.-K.C.	3,320
[illegible]rle (1949)	32-23-13W	380	20,613	283,013	13	Lans.-K.C.	3,669
[illegible]on (1940)	4-23-13W	Combined with Gates					
[illegible]t. View (1952)	29-22-13W	80	12,942	17,337	2	Lans.-K.C.	3,841
[illegible]eller (1938)	29-21-12W	4,400	17,489	4,924,290	4	Lans.-K.C.	3,356
			609,346		85	Arbuckle	3,594
[illegible]eller West (1949)	24-21-13W	120	6,924	23,103	3	Arbuckle	3,658
[illegible]ckle (1948)	28-22-14W		no runs	21,542		Lans.-K.C.	3,696
[illegible]ola (1948)	15-25-11W	80	3,817	27,164	2	Viola	3,921
[illegible]sell (1953)	7-25-11W	40	2,400	2,400	1	Viola	3,913
North Star (1952)	27-24-12W	640	62,502	109,312	8	Viola	3,915
			19,316		2	Simpson	4,063
North Star North (1953)	21-24-12W	40	875	875	1	Arbuckle	4,101
O'Connor (1946)	8-24-15W	120	3,324	20,657	3	Lans.-K.C.	3,768
Oscar (1949)	24-22-14W	314	20,605	136,713	8	Lans.-K.C.	3,503
						Viola	3,777
						Arbuckle	3,778
Oscar North (1951)	14-22-14W	400	99,217	165,333	11	Arbuckle	3,780
Oscar South (1953)	26-22-14W		no report	none		Arbuckle	3,817
Oscar West (1952)	22-22-14W	800	164,672	180,584	19	Lans.-K.C.	3,593
Pleasant Hill (1951)	26-24-12W		Abandoned during 1953			Lans.-K.C.	3,530
Pleasant Grove (1952)	26-22-12W	160	42,779	47,049	5	Lans.-K.C.	3,462
Prairie Home (1949)	2-21-13W		no runs	14,940	2	Arbuckle	3,514
Prairie Home South (1953)	11-21-13W	40	6,846	6,846	1	Lans.-K.C.	3,395
Pritchard South (1951)	3-21-14W	40	3,270	10,267	1	Lans.-K.C.	3,483
Pritchard Southeast* (1953)	2-21-14W	80	7,842	7,842	2	Arbuckle	3,472
Pundsack (1947)	19-21-13W	1,680	231,703	678,519	35	Lans.-K.C.	3,575
						Arbuckle	3,735
Pundsack North (1950)	18-21-13W	160	17,339	65,130	4	Arbuckle	3,674
Pundsack Northwest (1950)	24-21-14W		no report	5,031		Lans.-K.C.	3,512
Radium (1953)	7-22-14W	40	1,043	1,043	1	Lans.-K.C.	3,476
						Viola	3,775
Raidium Townsite (1953)	5-22-14W	120	11,826	11,826	3	Arbuckle	3,852
Rapke (1953)	25-23-13W	40	4,740	4,740	1	Lans.-K.C.	3,688
Rattlesnake (1938)	13-24-14W	160	11,214	188,244	4	Lans.-K.C.	3,608
Rattlesnake Southwest(1950)	14-24-14W	40	8,839	65,838	1	Lans.-K.C.	3,760
Rattlesnake West (1944)	11-24-14W	240	22,722	130,308	7	Lans.-K.C.	3,759
						Mississippian	4,025
Richardson (1930)	36-22-12W	1,560	2,613	12,266,437	2	Lans.-K.C.	3,264
			474,247		69	Arbuckle	3,537
Richland (1944)	27-24-14W		no report	186,258		Mississippian	4,032
						Arbuckle	4,232
Riley (1940)	28-23-11W	80	2,536	139,713	2	Lans.-K.C.	3,323
Rose Valley (1952)	36-25-13W	40	7,087	11,985	1	Lans.-K.C.	3,824
Rothgarn (1943)	10-21-13W	600	23,379	296,278	10	Lans.-K.C.	3,369
						Arbuckle	3,509
Rothgarn Southeast (1950)	14-21-13W	160	8,487	88,356	1	Lans.-K.C.	3,378
			36,234		3	Arbuckle	3,544
St. John (1935)	23-24-13W	840	32,676	2,599,833	16	Lans.-K.C.	3,503
						Arbuckle	4,075
St. John North (1952)	20-23-13W	40	9,040	11,271	1	Lans.-K.C.	3,603
St. John Northwest (1952)	20-23-13W	40	5,497	9,313	1	Lans.-K.C.	3,644
St. John Townsite (1944)	33-23-13W	400	17,325	401,747	10	Lans.-K.C.	
						Arbuckle	3,919
Santiago (1947)	12-21-12W	240	8,744	140,875	5	Arbuckle	3,480
Sand Hills (1944)	19-21-11W	40	3,152	56,589	1	Arbuckle	3,548
Sandra (1946)	14-21-12W	860	48,279	219,212	11	Lans.-K.C.	3,282
						Arbuckle	3,546

TABLE 56.—*Oil production in Kansas during 1953, continued*

Pool or field name and year of discovery	Location of discovery well	Area, acres	1953 production, bbls.	Cumulative production to end of 1953, bbls.	No. producing wells	Producing zone	De to du zo fe
Shaeffer (1941)	3-21-13W	200	16,244	355,590	5	Lans.-K.C.	3
						Arbuckle	3
Shepherd (1951)	16-22-11W	320	63,184	167,335	9	Arbuckle	3
Shepherd South (1953)	21-22-11W	80	8,444	8,444	2	Arbuckle	3
Silver Bell (1949)	10-22-13W	200	12,764	54,042	3	Lans.-K.C.	3
						Arbuckle	3
Sittner (1937)	33-21-12W	440	21,552	676,418	13	Lans.-K.C.	3
						Arbuckle	3
Slade (1953)	23-25-12W	40	975	975	1	Lans.-K.C.	3
Sleeper (1951)	22-22-11W		no runs	14,796	2	Penn. congl.	3
Smallwood (1951)	2-22-14W	780	185,450	398,743	19	Lans.-K.C.	3
						Arbuckle	3
Snider (1936)	3-21-11W	80	17,944	462,274	2	Simpson	3
Snider South (1938)	16-21-11W	500	73,500	1,259,501	9	Simpson	3
			7,691		1	Arbuckle	
Spangenberg (1943)	21-22-12W	40	2,741	82,848	1	Arbuckle	3
Stafford (1940)	15-24-12W	1,100	107,707	3,483,949	29	Viola	3
						Arbuckle	3
Star (1950)	4-21-14W		no runs	9,755	1	Arbuckle	3
Strobel (1952)	9-22-14W	160	16,776	32,802	3	Lans.-K.C.	3
			9,375		1	Arbuckle	3
Strobel Northwest (1952)	8-22-14W	80	5,351	18,950	1	Simpson	3
			9,390		1	Arbuckle	3
Syms East (1947)	21-21-12W	80	2,459	12,299	2	Arbuckle	3
Syms Southeast (1952)	27-21-12W	80	15,687	18,043	2	Arbuckle	3
Taylor (1952)	15-21-14W	40	4,448	13,875	1	Simpson	3
Taylorville (1953)	29-25-12W	40	4,044	4,044	1	Viola	4
Van Lieu (1943)	20-24-13W	120	2,128	204,513	3	Arbuckle	4
Van Winkle (1950)	23-21-14W	40	1,946	10,995	1	Lans.-K.C.	3
Van Winkle Southeast (1950)	26-21-14W	80	15,456	49,652	2	Lans.-K.C.	3
Wendelburg (1951)	19-23-11W	40	3,088	13,446	1	Arbuckle	3
Wood (1953)	33-22-14W	80	4,057	4,057	2	Simpson	3
						Arbuckle	3
Zenith-Peace Creek* (1937)	23-24-11W	5,800	143,899	20,492,297	76	Lans.-K.C.	3
						Viola	3
Pools or fields abandoned				50,896			
Total Stafford County		56,590	6,874,805	82,888,336	1,208		
			SUMNER COUNTY				
Alton (1949)	10-35-2W		no report	12,148		Simpson	4
Anness (1937)	2-30-4W	40	744	154,772	1	Simpson	4
Anson (1948)	35-30-2W	120	27,734	102,627	5	Lans.-K.C.	3
						"Miss. lime"	3
Bellman (1945)	15-30-1E	160	11,320	291,003	4	Simpson	3
Bitter Creek (1953)	1-35-1E	40	648	648	1	Mississippian	3
Caldwell (1929)	17-35-3W	160	43,036	1,522,093	4	Simpson	4
Caldwell Northwest (1952)	8-35-3W	80	21,771	24,782	2	Simpson	4
Chandler (1942)	4-35-2E		no report	9,947		"Miss. lime"	3
Churchill (1926)	25-31-2E	720	66,577	16,468,988	26	"Stalnaker"	1
						Arbuckle	2
Corbin (1948)	23-34-2W		no report	37,286		Simpson	4
Dyal (1953)	4-35-2E	120	2,912	2,912	3	"Bartlesville"	3
Fall Creek (1950)	3-35-3W	800	374,796	1,136,431	24	Simpson	4
Guelph (1951)	6-35-1E	780	80,420	435,231	10	Lans.-K.C.	3
			136,726		15	Simpson	3
			8,838		1	Arbuckle	3
Hilltop (1953)	26-34-2E	200	3,441	3,441	5	"Layton"	2
						"Bartlesville"	3
Hunnewell (1952)	18-35-1E	40	1,799	2,637	1	Mississippian	3
Latta (1927)	9-30-2W	540	44,307	1,288,235	11	Lans.-K.C.	3

[illegible]	33-32-2E	300	10,154	56,556	6	Mississippian	3,349
[illegible] (1948)	36-32-2E		no report	108,423		Arbuckle	3,474
[illegible]	7-32-2E	80	12,483	29,643	2	Simpson	3,735
						Arbuckle	3,773
[illegible] (1933)	7-35-3E		See Cowley County				
[illegible] (1927)	14-32-2E	800	97,594	16,229,745	25	Hoover	1,930
						"Stalnaker"	2,020
						"Layton"	2,510
						Arbuckle	2,655
[illegible] West (1926)	17-32-2E	240	21,131	720,716	6	Simpson	3,661
						Arbuckle	
[illegible] (1925)	12-33-2W	2,700	82,671	2,464,053	40	"Miss. lime"	3,474
						Simpson	3,744
[illegible] (1945)	12-33-2W	560	88,923	807,871	11	"Wilcox"	4,264
[illegible] (1950)	16-34-1E	360	63,308	163,780	10	"Layton"	3,030
						Simpson	4,002
[illegible] West (1925)	24-33-2E		no report	453,000		Arbuckle	
[illegible] (1952)	9-33-2E	40	10,082	14,733	1	Lans.-K.C.	2,804
[illegible] (1924)	19-32-2E		See Cowley County			"Bartlesville"	3,124
[illegible] (1953)	14-35-2E	80	5,376	5,376	2	"Cleveland"	3,158
[illegible]	31-32-2E		no report	3,171		Simpson	3,726
[illegible] (1945)	23-33-2E	40	647	6,089	1	"Bartlesville"	3,200
[illegible] North (1930)	15-35-2E	1,880	52,852	978,919	26	"Miss. lime"	3,443
[illegible] (1929)	33-31-1W	3,000	185,469	8,128,580	142	"Chat"	3,655
[illegible] (1951)	8-31-1W	40	1,767	15,868	1	Simpson	4,036
[illegible]	7-30-1E	560	37,174	389,439	7	Simpson	3,866
[illegible] Northwest (1944)	22-30-1W	600	152,341	870,032	14	Simpson	3,918
[illegible] fields abandoned				126,475			
Total Sumner County		15,080	1,655,041	53,065,650	407		

THOMAS COUNTY

[illegible] (1952)	19-9-32W	40	1,347	2,555	1	Mississippian	4,680

TREGO COUNTY

[illegible] (1953)	21-12-21W	40	3,884	3,884	1	Marmaton	3,879
[illegible] (1945)	15-12-21W	40	2,459	33,552	1	Arbuckle	3,958
[illegible] East (1947)	14-12-21W	40	4,785	46,262	1	Arbuckle	3,942
[illegible] (1952)	31-12-20W	460	33,541	382,537	6	Arbuckle	3,832
[illegible] Northwest (1944)	26-12-21W	160	13,582	186,460	4	Arbuckle	3,925
[illegible] Ranche (1952)	12-13-21W	40	9,049	10,469	1	Arbuckle	3,822
[illegible] (1952)	26-14-21W	600	70,180	71,567	9	Penn. congl.	3,822
[illegible] (1953)	19-11-22W		no report	none		Marmaton	3,818
[illegible] (1953)	29-15-21W		no report	none		Mississippian	4,151
[illegible] (1953)	5-14-21W	40	1,287	1,287	1	Penn. congl.	4,029
[illegible] (1952)	16-12-23W	80	6,930	13,140	2	Mississippian	3,850
[illegible] (1951)	26-12-22W	3,800	621,495	1,291,781	71	Arbuckle	3,961
[illegible] (1952)	26-12-21W	460	44,699	97,869	6	Lans.-K.C.	3,693
			14,981		2	Arbuckle	3,896
[illegible] (1953)	1-11-21W	40	4,363	4,363	1	Lans.-K.C.	3,573
[illegible] Creek (1951)	32-12-21W		no runs	340	1	Arbuckle	3,904
[illegible] Slope (1952)	21-14-21W	640	86,045	119,235	12	Marmaton	3,848
[illegible] (1934)	14-11-23W	600	21,105	840,202	5	Lans.-K.C.	3,619
[illegible] East (1949)	13-11-23W		no runs	11,904	1	Lans.-K.C.	3,576
[illegible] Northwest (1953)	4-11-23W	120	19,244	19,244	3	Lans.-K.C.	3,561
[illegible] (1950)	12-11-21W	700	74,586	241,071	11	Lans.-K.C.	3,428
						Arbuckle	3,666
[illegible] fields abandoned				51,206			
Total Trego County		7,860	1,032,215	3,426,373	139		

WABAUNSEE COUNTY

[illegible] Branch (1949)	33-13-10E	1,260	470,556	1,365,776	18	"Hunton"	2,929
						Viola	3,201
[illegible] Creek (1950)	2-13-10E	320	35,363	123,948	4	Viola	2,923
[illegible] (1950)	11-11-11E	320	35,487	143,082	6	Viola	2,901
[illegible] (1951)	10-15-11E	100	5,862	10,265	1	Simpson	3,230

TABLE 56.—*Oil production in Kansas during 1953, continued*

Pool or field name and year of discovery	Location of discovery well	Area, acres	1953 production, bbls.	Cumulative production to end of 1953, bbls.	No. producing wells	Producing zone	Depth to producing zone, feet
Woodbury (1951)	11-15-10E	200	16,863	30,759	2	Viola	3,328
Total Wabaunsee County		2,200	566,131	1,681,429	31		
			WILSON COUNTY				
Altoona (1903)	10-29-16E	800			11	"Squirrel"	650
a			3,190			"Bartlesville"	900
b			849				
c			427				
d			469				
e			499				
f			36				
Altoona East	29-17E	300	11,184		7	"Bartlesville"	900
Benedict	28-15E	40	472		1	"Bartlesville"	1,000
Buffalo* (1924)	27-16E	1,200			12	"Bartlesville"	1,025
a			7,089			Cherokee	1,150
b			5,194				
c			5,490				
Buxton	20-30-14E	80	1,207		2		
Fredonia (1890)	29-15E	400			5	"Burgess"	1,050
a			4,030				
b			90				
c			25				
d			59				
Humboldt-Chanute*	28-17E	200	2,037		4	"Bartlesville"	850
Neodesha*	30-16E	4,000			50+	"Bartlesville"	950
a			11,419				
b			239				
c			299				
d			1,112				
Neodesha East	30-17E	100	506		1		
Vilas (1905)	27-17E	250			5	"Bartlesville"	1,000
a			3,086				
b			2,401				
c			141				
"Wiggins"	28-17E	600			10	"Bartlesville"	850
a			6,463				
b			2,187				
Miscellaneous			238		1		
Total Wilson County		7,970	70,438	5,413,584 recorded	109+		
			WOODSON COUNTY				
Batesville (1934)	34-25-14E		no report			"Bartlesville"	1,450
Big Sandy (1923)	23-26-14E	650	23,470		19	"Bartlesville"	1,230
Buffalo* (1924)	26-16E	500	10,015		4	"Bartlesville"	950
						Cherokee	1,150
Evans* (1938)	21-23-15E	300	4,676		5	Mississippian	1,540
Halligan	30-26-17E	80	6,235		2		
Hoagland (1929)	2-24-14E	1,400	26,185		22+	Mississippian	1,635
Humboldt-Chanute*	25-17E	600			7	"Bartlesville"	900
a			4,031				
b			1,234				
Jobes	24-13E		no report				
Neosho Falls* (1928)	23-16E	2,300			26	"Squirrel"	950
a			26,666			Mississippian	1,200
b			5,352				
c			10,977				
d			699				
Perry	26-17E	640	35,560		6		

[illegible] (1936)	22-24-17E	120	1,873		3	Mississippian	1,190
[illegible] (1932)	11-25-16E	1,000	221,023		200	"Bartlesville"	1,500
[illegible]	7-24-16E		no report				
Silver City (1946)	19-23-15E		no report				
[illegible]ele (1952)	20-23-15E	40	1,194		1	Mississippian	1,525
Vernon	23-16E	200			5	Mississippian	1,420
a			732				
b			133				
c			1,919				
d			58				
[illegible] North (1920)	22-23-13E	600	17,108		12	"Bartlesville"	1,585
						Mississippian	1,840
[illegible]e (1937)	31-23-15E	900			10	Mississippian	1,570
a			13,953				
b			988				
Zimmerscheid*	23-14E	7,000			328*	"Bartlesville"	1,630
a			242,100			Mississippian	1,750
b			316				
Hasman (1935)	3-24-15E	300	4,319		4	Mississippian	1,520
Iola Center	28-25-15E	1,200			11	Mississippian	1,480
a			15,520				
b			2,260				
c			540				
Miscellaneous			9,210		7		
Total Woodson County		1,863	638,346	5,907,518 recorded	672*		

* Field extends into adjacent county or counties.
# Corrected cumulative.

TABLE 57.—*Gas production in Kansas during 1953*

Pool or field name and year of discovery	Location of discovery well	Area, acres	1953 production, M cu.ft.##	Cumulative production to end of 1953, M cu. ft.##	No. producing wells	Producing zone	Depth to producing zone, feet
ALLEN COUNTY							
Humboldt-Chanute*	26-18E		124,771		30	"Squirrel"	740
						"Bartlesville"	850
Miscellaneous			232,365		55		
Total Allen County			357,136		85		
BARBER COUNTY							
Aetna (1935)	13-34-15W	500	247,995	1,339,777	4	Mississippian	4,850
						Viola	5,215
Boggs (1947)	8-33-12W		Included with Whelan			Simpson	4,824
Hardtner (1944)	2-30-11W		no report	803,532		Simpson	4,435
						Viola	4,509
						Arbuckle	4,540
Littlemood Creek (1948)	21-30-11W		no report	none		Simpson	4,582
Deerhead (1942)	26-32-15W		no report	1,896,083		Viola	4,931
Deheer (1948)	2-33-15W	100	26,381	140,442	1	Mississippian	4,902
						Viola	5,176
Donald (1946)	33-31-15W		no report	none		"Miss. lime"	4,697
Lake City (1945)	7-31-13W		Included with Skinner North				
Medicine Lodge (1927)	13-33-13W	7,500	3,637,317	165,759,840	41	"Douglas sd."	3,812
						"Chat"	4,455
						Simpson	4,860
Medicine Lodge Northeast (1945)	8-33-12W		Combined with Medicine Lodge				

TABLE 57.—*Gas production in Kansas during 1953, continued*

Pool or field name and year of discovery	Location of discovery well	Area, acres	1953 production, M cu.ft.**	Cumulative production to end of 1953, M cu. ft.**	No. producing wells	Producing zone	Depth to producing zone feet
Nippawalla (1951)	13-33-12W		no report	none		"Douglas sd."	3,6
Nurse (1953)	23-31-13W		no report	none		"Douglas sd."	3,5
Roundup (1953)	28-33-11W		no report	none		Mississippian	4,4
Roundup South (1953)	33-33-11W		no report	none		Mississippian	4,4
Skinner North	17-31-14W	5,000	397,843	25,451,285	11	Viola	4,6
Skinner South (1944)	32-31-14W		Included with Skinner North			"Douglas sd."	4,0
Skinner Southwest (1953)	1-32-15W		no report	none		"Douglas sd."	4,0
Whelan (1934)	32-31-11W	700	2,335,083	25,115,148	13	"Douglas sd."	3,5
						"Chat"	4,3
Total Barber County		13,100	6,644,619	220,506,107	70		
			BARTON COUNTY				
Adolph (1947)	16-20-15W		no report	none		Arbuckle	3,73
Ash Creek* (1948)	31-20-15W	200	75,000est.		2	Arbuckle	3,76
Behrens (1944)	6-20-15W	200	75,000est.		2		
Bergtal (1941)	22-20-15W	500	19,466	897,604	1	Arbuckle	3,63
Converse (1953)	20-20-15W		no report	none		Arbuckle	3,78
Dundee (1945)	29-20-14W	600	63,071	2,021,092	5	Arbuckle	3,60
Eberhardt (1935)	14-19-11W		no report	398,567			
Heizer Southwest (1952)	21-19-14W	100	231,653	244,904	1	Penn. congl.	3,49
Krier (1944)	30-16-11W	160	99,238	651,057	2		
			Within Kraft-Prusa pool				
Otis-Albert* (1930)	11-18-16W	5,000	1,072,494est.		13	Neva	
						Reagan	3,50
Pawnee Rock* (1936)	19&20-15&16W	100	50,000est.		1		
Rick* (1941)	11-19-11W		no report	403,810		Arbuckle	3,35
Unruh (1945)	24-20-15W	400	830,068	12,816,861	4	Arbuckle	3,64
Miscellaneous			14,366		5		
Total Barton County		7,260	2,530,856	18,721,255	36		
			BUTLER COUNTY				
Andover South*	31-27-3E		no report			"Stalnaker"	2,00
			CHASE COUNTY				
Altemus	26-18-8E		no report				
Davis (1929)	18-18E	640	55,973est.		32 est.	L. Permian	350-400
Elmdale	19-7E	300	13,557		8 est.	L. Permian Mabaunsee	50 800
Hymer	18-7E		no report				
Lipps	32-18-7E		no report				
Neva	19-7E		no report				
Total Chase County		940	69,530 est.		40 est.		
			CHAUTAUQUA COUNTY				
Miscellaneous			134,660		17		
			CLARK COUNTY				
Ashland (1951)	35-32-23W	1,500	615,058	910,560	3		
Harper Ranch (1953)	9-34-21W		no report	none		Morrowan	5,437
McKinney* (1950)	2-34-26W	1,200	82,878	82,878	2	Mississippian	5,762
Snake Creek (1952)	21-34-21W		no report	none		Morrowan	5,452
Theis (1951)	5-34-25W		Combined with McKinney				
Total Clark County		2,700	697,936	993,438	5		

COFFEY COUNTY							
"Hurley"		80	11,324		2		
COMANCHE COUNTY							
Robbins Ranch (1953)	23-31-16W		no report	none		Mississippian	4,915
COWLEY COUNTY							
Brown West (1951)	14-31-7E		no report				
"Burridge Southeast"		40	73,295		1		
Bates			no report			"Douglas sd."	1,560
Dry Hollow	32-5E		no report				
Hudson	34-3E	400	715,100		5		
New Salem (1949)	21-31-5E	80	317,221		2		
School Creek North (1953)	10-32-7E		no report	none		"Layton"	2,114
Tisdale	32-5E	40	2,482		1		
Trees	30-4E	80	39,085		2		
Udall (1953)	28-31-6E		no report	none		"Layton"	2,220
Wilmot-Floral	31-5E		no report				
Winfield			no report				
Total Cowley County		640	1,147,183		11		
CRAWFORD COUNTY							
Walnut		100	8,060		9		
Arbuckle		300	37,064		20		
Total Crawford County		400	45,124		29		
DOUGLAS COUNTY							
Bloom			no report				
Lawrence			no report				
EDWARDS COUNTY							
Belpre (1942)	8-25-16W	100	205,319	7,375,060	3	Lans.-K.C.	3,800
Kinsley (1948)	6-24-15W		no report	none		Arbuckle	4,020
Total Edwards County		100	205,319	7,375,060	3		
ELK COUNTY							
Beth-Denton (1920)	4-30-9E	100	45,038		4		
Grayton		100	16,792est.		4		
Miscellaneous		400est.	201,603		20		
Total Elk County		600	323,433 est.		28		
ELLSWORTH COUNTY							
Stoltenberg (1947)	18-17-9W	100	17,312	443,891	2	Shawnee	2,728
Figure includes total county production as reported by Corporation Commission							
FINNEY COUNTY							
Baxter (1932)	16-25-34W	269,000	30,784,079	151,748,079	306	Chase	2,200
Kent (1938)	27-21-34W		no report	146,075			
Total Finney County		269,000	30,784,079	151,894,154	306		
FORD COUNTY							
Bellers (1953)	25-28-21W		no report	none		Mississippian	5,024
Pleasant Valley (1938)	34-27-21W		no report	none		Mississippian	4,954
Miscellaneous			10,861		1		
GRAHAM COUNTY							
Ann (1951)	34-9-23W		no report	12,656			

TABLE 57.—*Gas production in Kansas during 1953, continued*

Pool or field name and year of discovery	Location of discovery well	Area, acres	1953 production, M cu.ft.**	Cumulative production to end of 1953, M cu. ft.**	No. producing wells	Producing zone	Depth to producing zone, feet
			GRANT COUNTY				
Hugoton* (1930)	12-29-38W	370,000	84,403,364	537,002,364	560	Chase	2,2
			HAMILTON COUNTY				
Hugoton* (1946)	12-26-39W	28,000	5,367,827	8,349,827	25	Chase	2,2
			HARPER COUNTY				
Grabs (1949)	7-31-8W	180	106,507	304,559	4	Mississippian	4,3
Grabs Southeast (1950)	17-31-8W		no report	none		Mississippian	4,3
Runnymede (1953)	23-31-6W		no report	none		Simpson	4,6
Total Harper County		180	106,507	304,559	4		
			HARVEY COUNTY				
Burrton* (1930)	23-23-4W	800	385,065		13	Mississippian	3,2
			Includes Reno County				
Burrton Northeast (1942)	3-23-3W		Included with Burrton			Mississippian	3,2
Sperling (1935)	23-22-2W	250	47,350	7,458,044	1	"Chat"	2,9
Wall (1951)	25-22-3W		no report	none		Mississippian	3,1
Total Harvey County		1,050	432,415	7,843,109	14		
			HASKELL COUNTY				
Hugoton* (1931)	29-30-34W	241,000	31,315,837	192,850,837	322	Chase	2,2
			JEFFERSON COUNTY				
McLouth		400	36,384		17		
			JOHNSON COUNTY				
Miscellaneous			25,728		24		
			KEARNY COUNTY				
Hugoton* (1937)	32-25-35W	370,000	71,955,888	346,563,888	478	Chase	2,2
			KINGMAN COUNTY				
Artesian Valley (1952)	22-27-10W		no report	3,870			
Broadway (1948)	21-28-5W	300	562,891	1,068,145	7	Mississippian?	
Cunningham* (1931)	7-28-11W	800	298,702est.		13	Arbuckle	4,0
						Viola	4,2
Dewey (1950)	9-28-5W	1,000	507,164	1,938,488	6		
Total Kingman County		2,100	1,368,757	3,799,053	26		
			KIOWA COUNTY				
Alford (1944)	14-30-19W		no report			Spergen	5,0
Brenham (1947)	29-28-17W		no report			"Miss. chert"	4,8
Miscellaneous			4,094	81,521			
Total Kiowa County			4,094	81,521			
			LABETTE COUNTY				
Coffeyville-Cherryvale*	32-17E		no report				
Valeda			336		1		

Miscellaneous			27,535		13		
Total Labette County			27,871		14		
LEAVENWORTH COUNTY							
Linwood and Roberts Maywood*		80	9,515est.				
Roberts-Maywood*		80	9,030				
Total Leavenworth County		160	18,545 est.				
LINN COUNTY							
Lalyne-Cadmus	20-24E	40	10,635est.				
MCPHERSON COUNTY							
Doris (1940)	13-19-1W		no report			"Chat"	2,897
Doles Park (1947)	12-19-1W		no report			"Chat"	2,843
Fraser North (1951)	4-21-1W		no report	none		Mississippian	2,955
McPherson (1926)	29-18-2W		no report			Lans.-K.C.	2,340
						"Chat"	2,967
						Viola	3,140
Ritz-Canton (1929)	12-20-2W		no report			"Chat"	2,935
MARION COUNTY							
Lehigh North (1953)	23-19-1E		no report	none		Mississippian	2,770
Propp	8-19-4E		no report				
Miscellaneous		160	108,986		2		
Total Marion County		160	108,986		2		
MEADE COUNTY							
Adams Ranch (1945)	8-35-30W	400	107,494	386,691	1	Morrowan	5,708
						Mississippian	5,850
Adams Ranch East (1947)	36-34-30W		no report	none		Morrowan	5,874
						Mississippian	5,994
Ermo Northeast (1953)	16-33-30W		no report	none		Morrowan	5,721
Praeger (1952)	7-35-29W		no report	none		Morrowan	5,780
Sitzer East (1953)	30-33-30W		no report	none		Morrowan	5,645
Steinmeyer (1950)	2-34-26W	7,000	2,879,522	3,415,015	11	Mississippian	5,762
Stevens (1952)	32-32-30W		no report	none		Morrowan	5,560
Total Meade County		7,400	2,987,016	3,801,706	12		
MIAMI COUNTY							
Miscellaneous			67,126est.				
MONTGOMERY COUNTY							
"Cavert"		40	60,853est.				
Coffeyville-Cherryvale*(1902)	33-17E		no report				
Wedesha South		40	51,927				
Miscellaneous			485,052est.				
Total Montgomery County		80	597,832 est.				
MORRIS COUNTY							
Miscellaneous			48,371		18		
MORTON COUNTY							
Dreyer (1953)	5-32-43W		no report	none		Wabaunsee	2,812
						Shawnee	3,136
Greenwood (1951)	14-33-42W	28,000	77,253	77,253	47	Wabaunsee	2,777
						Shawnee	3,069
						Morrowan	4,872
Greenwood South (1953)	19-34-43W		no report	none		Morrowan	4,238

TABLE 57.—*Gas production in Kansas during 1953, continued*

Pool or field name and year of discovery	Location of discovery well	Area, acres	1953 production, M cu.ft.**	Cumulative production to end of 1953, M cu. ft.**	No. producing wells	Producing zone	Depth to producing zone, feet
Hugoton* (1930)	24-34-40W	185,000	24,230,135	159,748,135	249	Chase	2,200
Richfield (1948)	17-32-40W	640	50,031	680,295	1	Basal Penn. (Atokan)	4,990
						Morrowan	5,397
Westola (1953)	5-32-42W		no report	none		Lans.-K.C.	3,534
Total Morton County		213,640	24,357,419	160,505,683	297		
NEOSHO COUNTY							
Earlton			1,435		1		
Miscellaneous			127,880				
Total Neosho County			129,315		1+		
PAWNEE COUNTY							
Ash Creek* (1948)	31-20-15W	100	75,000est.		2	Arbuckle	3,769
Benson (1945)	30-23-15W	700	605,296		7	Arbuckle	4,048
Benson Southeast (1946)	32-23-15W	Combined with Benson					
Byers (1951)	36-21-16W	100	322,259	847,779	2	Arbuckle	3,908
Hearn (1953)	35-23-15W		no report	none		Lans.-K.C.	3,833
Larned (1949)	28-21-16W		no report			Arbuckle	3,877
Pawnee Rock* (1936)	19&20-15&16W	600	1,304,770est.		16		
Ryan*	35-19-16W	100	75,000est.		2		
Shady (1945)	34-22-16W	400	75,433	3,933,805	3	Arbuckle	4,063
Sweeney (1953)	8-21-15W		no report	none		Arbuckle	3,792
Sweeney Southwest (1953)	7-21-15W		no report	none		Arbuckle	3,808
Torrance (1947)	19-21-15W	100	317,360		1		
Zook (1942)	16-23-16W	300	370,929	11,366,260	3	Arbuckle	4,066
Total Pawnee County		2,400	3,146,047	18,525,270	36		
PRATT COUNTY							
Barnes (1952)	25-27-12W		no report	none		Simpson	4,328
Chitwood (1943)	23-28-12W	700	489,479	9,899,286	15	Viola	4,340
Cunningham* (1931)	7-28-11W	3,000	896,108est.		30	Viola	4,278
		Includes Cairo pool production				Arbuckle	4,094
Iuka-Carmi (1942)	29-26-12W	400	938,012	2,574,224	6	Viola	4,122
Lion (1953)	29-27-11W		no report	none		Viola	4,323
Shriver (1949)	27-29-14W		no report	104,191			
Stark (1941)	13-26-12W		no report			Viola	4,121
Ward (1941)	11-26-12W		no report			Viola	4,129
Total Pratt County		4,100	2,323,599	13,473,809	51		
RENO COUNTY							
Burrton* (1930)	23-23-4W		Included with Harvey County			Mississippian	3,298
Lerado (1937)	10-26-9W	200	325,769	1,634,679	4		
Yoder (1935)	34-24-5W	100	123,149		1	"Chat"	3,402
Zenith-Peace Creek* (1937)	23-24-11W		no report			Viola	3,860
Total Reno County		300	448,918	1,757,828	5		
RICE COUNTY							
Alden (1937)	22-21-9W		Included with Chase-Silica	15,449,656		"Misener"	3,317
Chase-Silica (1936)	6-19-9W	500	301,421	1,835,285	4	Arbuckle	3,192
		Includes miscellaneous Rice County production					
Lyons (1888)	35-19-8W		no report	13,805,429		Simpson	3,290
						Arbuckle	3,277
Orth (1933)	27-18-10W	160	75,609		1	Lans.-K.C.	2,906

Mairira (1947)	36-19-9W		Included with Chase-Silica	236,477		Tarkio	2,117
Union (1950)	28-20-8W		Included with Chase-Silica			Penn. congl.	3,275
Total Rice County		660	377,030	31,402,456	5		
RUSH COUNTY							
Otis-Alberta* (1930)	11-18-16W	6,500	653,835est.		25	Neva	
Reichel (1953)	23-17-17W		no report			Lans.-K.C.	3,330
Ryan*	35-19-16W	300	700,000est.		11	Reagan	3,507
Total Rush County		6,800	1,353,835		36		
SCOTT COUNTY							
Keystone (1950)	25-18-32W		no report	45,122			
SEDGWICK COUNTY							
Andover South* (1950)	31-27-1E		no report	none		"Stalnaker"	2,006
Bartholomew (1946)	30-27-4W	680	386,500		14	"Miss. lime"	3,732
Derby (1937)	32-28-2E	no longer productive; used for gas storage only				"Stalnaker"	2,215
						Lans.-K.C.	2,228
Schulte (1949)	7-28-1W	200	172,251	1,119,148	3		
Total Sedgwick County		880	558,751	1,677,899	17		
SEWARD COUNTY							
Blue Bell (1953)	33-34-31W		no report	none		Mississippian	5,959
Hanks (1952)	18-35-31W		no report	none		Morrowan	5,927
Hugoton* (1922)	3-35-34W	218,000	22,320,095	109,027,095	242	Chase	2,200
Kismet Northwest (1953)	10-33-31W		no report	none		Morrowan	5,584
Liberal-Light (1951)	11-35-32W	1,000	3,434,179	7,945,715	7	Morrowan	5,906
Liberal Southeast (1947)	15-35-33W	860	1,243,024	9,847,803	3	Penn.sandstone	6,202
Liberal-White (1952)	35-34-32W	Combined with Liberal-Light					
Thirty-one (1953)	18-31-31W		no report	none		Morrowan	5,448
Total Seward County		219,860	26,997,298	126,820,613	252		
STAFFORD COUNTY							
Bradbridge* (1948)	6-24-15W		no report	none		Arbuckle	4,020
Farmington (1948)	27-24-15W		Included with Macksville	774,387		Mississippian	4,207
Farmington West (1952)	6-25-15W		no report	none		Penn. "sand"	4,164
Gates (1950)	26-21-13W		no report	266,956		Lans.-K.C.	3,473
Hill (1952)	11-23-12W		no report	none		Lans.-K.C.	3,447
Knoche (1951)	8-24-12W	300	299,981	957,071	3	Viola	3,810
Macksville (1947)	3-24-15W	400	861,634	5,911,080	8	Lans.-K.C.	
O'Connor (1947)	16-24-15W		no report	none		Arbuckle	4,061
Zenith-Peace Creek* (1937)	23-24-11W		no report			Viola	3,860
Total Stafford County		700	1,161,615	7,909,494	11		
STANTON COUNTY							
Hugoton* (1944)	32-30-39W	152,000	16,018,254	61,090,254	206		
STEVENS COUNTY							
Hugoton* (1927)	31-33-37W	597,000	101,239,764	1,174,319,764	696	Chase	2,200
SUMNER COUNTY							
Fall Creek (1950)	3-35-3W		no report			Simpson	4,746
Padgett (1924)	23-34-2E		no report			"Miss. lime"	3,474
Vernon North (1915)	15-35-2E		no report				
Wellington (1929)	33-31-1W	No longer productive; used for gas storage only				"Chat"	3,655

TABLE 57.—*Gas production in Kansas during 1953, concluded*

Pool or field name and year of discovery	Location of discovery well	Area, acres	1953 production, M cu.ft.**	Cumulative production to end of 1953, M cu. ft.**	No. producing wells	Producing zone	Depth to producing zone, feet
			WILSON COUNTY				
Altoona-Earlton			90,318		28		
Neodesha*	30-16E		41,483		18		
Miscellaneous			59,841		—		
Total Wilson County			191,642		46+		
			WOODSON COUNTY				
Miscellaneous			11,824		7		
			WYANDOTTE COUNTY				
Roberts-Maywood*	11-23E	100	5,470		2		

* Field extends into adjacent county or counties.
** All figures at base of 14.65 psia.

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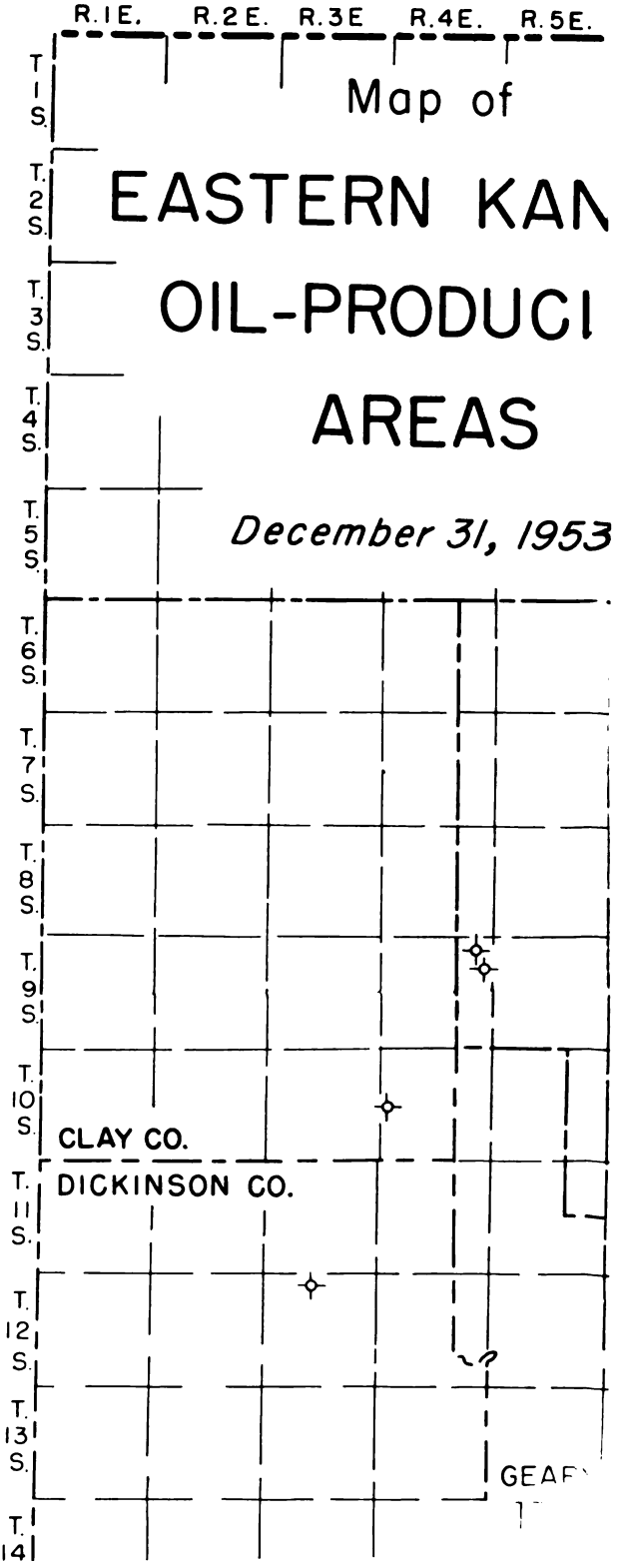
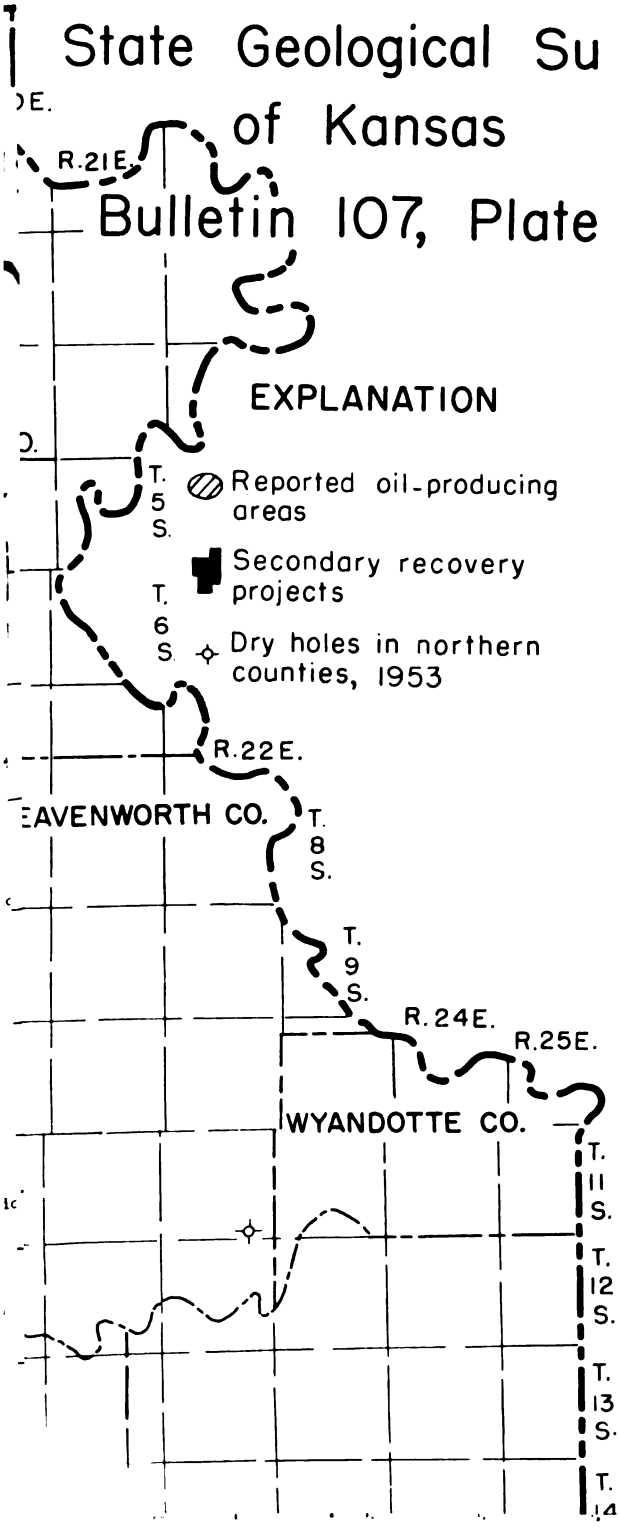
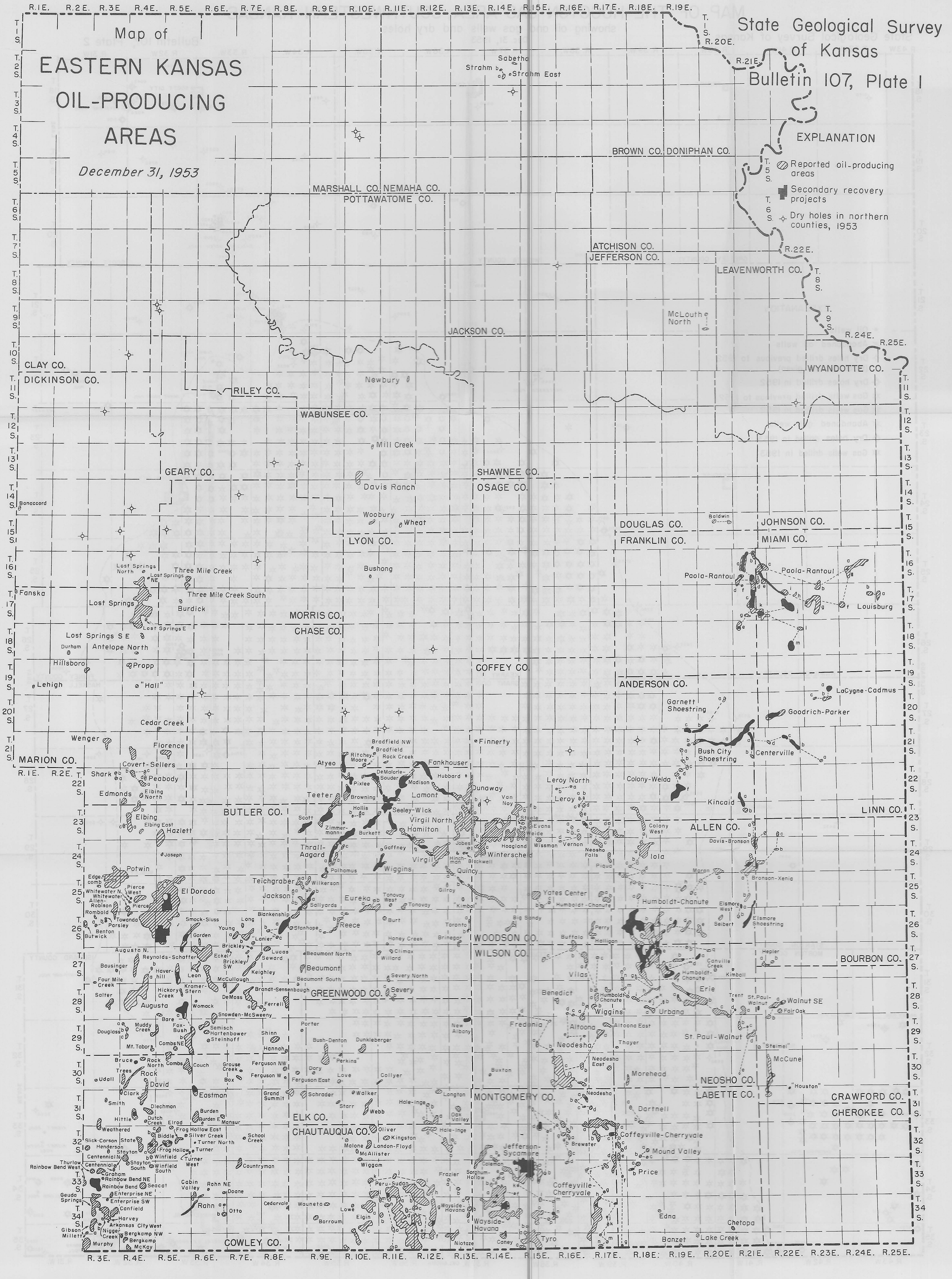
INDEX

No.	Field	Operator	Project
101	Seeley-Wick	Cities Service Oil Co.	Clopton
102	do	Magnolia Petro. Co.	Seeley Unit
103	do	Pay Rock Oil, Inc.	Freeburg
104	do	Phillips Petro. Co.	Beal
105	do	do	McGilvary
105	do	do	McGilvary
106	do	do	Seeley-Wick
107	do	do	York, DeMal
108	do	do	York-Wescot
109	do	Skelly Oil Co.	Wick Water
110	Tester	Cities Service Oil Co.	Tester
111	do	Kirkpatrick & McGuire	Refiners Oi
112	do	Skelly Oil Co.	Shambaugh
113	Thrall-Aagard	Arkansas Fuel Oil Co.	E. Marshall
114	do	Ohio Oil Co.	Martindell
115	do	do	Olson-Ander
116	do	Phillips Petro. Co.	Aagard
117	do	do	Cartwright
118	do	do	Gard
119	do	do	Lewis & Can
120	do	Sinclair Oil & Gas Co.	Thrall-McKe
121	Virgil	Alf M. Landon	Hamilton
122	Virgil North	Joe Phillips	Young
123	Wiggins	W. A. McGinnis	Wiggins
	Totals		
124	Price	Veeder Supply & Development Co.	Labette Flc
125	Centerville	Fell & Wolf Oil Co.	Group 6
126	Goodrich-Parker	Deep Rock Oil Corp.	Goodrich
127	LaCygne-Cadmus	do	LaCygne
	Totals		
128	Atyeo	Barbara Oil Co.	Jones Wate
129	do	Ohio Oil Co.	Atyeo
130	Fankhauser	Phillips Petro. Co.	Lauck
	Totals		
131	Graber	Cities Prod. Corp.	Graber

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 1962, bbls.	No.
Wells at 850' & produced	189	2,888	55,076	101
Douglas	209	-	126,137	102
Recycle	125	1,815	9,051	103
Douglas	320	3,690	•	104
do	280	920	•	105
do	140	2,120	•	106
do	200	7,200	•	107
do	210	2,240	•	108
do	250	1,070	•	109
Lake, produced, & Arbuckle	230	458	71,603	110
Douglas	297	-	236	111
Salt water&sand	468	2,861	7,153	112
1200' water&sand	209	4,035	44,511	113
Arbuckle	165	3,933	•	114
Douglas	350	6,620	•	115
do	400	7,850	•	116
Arbuckle	250	1,700	•	117
Douglas	180	8,300	•	118
do	190	6,900	•	119
ter Douglas & surface pond	215	2,910	380,000	120
Arbuckle & Douglas	-	-	-	121
Kansas City	35	-	3,500	122
-	-	-	-	123
ditional secondary recovery production			27,550	
			4,423,653	
Shallow & return water	50	-	7,200	124
Produced	-	-	-	125
Arbuckle	11	1,357	30,971	126
"Wilcox sand"	13	823	18,847	127
ditional secondary recovery production			17,700	
			67,518	
Arbuckle	1,000	1,915	•	128
do	200	4,560	•	129
Douglas	250	2,590	•	130
			157,319	
w well	100	1,407	19,215	131
	299	983	657,460	132






Map of
EASTERN KANSAS
OIL-PRODUCING
AREAS
December 31, 1953
State Geological Survey of Kansas
Bulletin 107, Plate I
EXPLANATION
Reported oil-producing areas
Secondary recovery projects
Dry holes in northern counties, 1953
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.21E. R.22E. R.24E. R.25E.
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.21E. R.22E. R.23E. R.24E. R.25E.
BROWN CO. DONIPHAN CO.
MARSHALL CO. NEMAHA CO.
POTTAWATOME CO.
ATCHISON CO.
JEFFERSON CO.
LEAVENWORTH CO.
JACKSON CO.
WYANDOTTE CO.
CLAY CO.
DICKINSON CO.
RILEY CO.
WABUNSEE CO.
GEARY CO.
SHAWNEE CO.
OSAGE CO.
DOUGLAS CO.
JOHNSON CO.
FRANKLIN CO.
MIAMI CO.
LYON CO.
MORRIS CO.
CHASE CO.
COFFEY CO.
ANDERSON CO.
LINN CO.
MARION CO.
BUTLER CO.
ALLEN CO.
WOODSON CO.
WILSON CO.
BOURBON CO.
GREENWOOD CO.
NEOSHO CO.
LABETTE CO.
CRAWFORD CO.
CHEROKEE CO.
MONTGOMERY CO.
ELK CO.
CHAUTAUQUA CO.
COWLEY CO.
Sabetha
Strahm
Strahm East
McLouth North
Newbury
Mill Creek
Davis Ranch
Woobury
Wheat
Bushong
Baldwin
Bonaccord
Fanska
Lost Springs North
Lost Springs NE
Lost Springs
Lost Springs E
Three Mile Creek
Three Mile Creek South
Burdick
Lost Springs SE
Durham
Antelope North
Hillsboro
Propp
Lehigh
"Hall"
Cedar Creek
Wenger
Florence
Covert-Sellers
Shark
Peabody
Edmonds
Elbing North
Elbing
Elbing East
Hazlett
Joseph
Potwin
Edgecomb
Whitewater N.
Whitewater
Allen-Robison
Rombold
Pierce West
Pierce
El Dorado
Towanda
Parsley
Benton
Butwick
Paola-Rantoul
Louisburg
LaCygne-Cadmus
Goodrich-Parker
Garnett Shoestring
Bush City Shoestring
Centerville
Colony-Welda
Kincaid
Finnerty
Leroy North
Leroy
Van Noy
Dunaway
Steele
Evans
Weide
Wissman
Vernon
Hoagland
Winterscheid
Neosho Falls
Piqua
Colony West
Iola
Davis-Bronson
Bronson-Xenia
Moran
Humboldt-Chanute
Elsmore West
Elsmore Shoestring
Seibert
Yates Center
Big Sandy
Perry
Halligan
Buffalo
Vilas
Canville Creek
Kimball
Hepler
Erie
Benedict
Wiggins
Urbana
Trent
St. Paul-Walnut
Walnut SE
Fair Oak
Fredonia
Altoona
Altoona East
Thayer
Neodesha
Neodesha East
"Steimel"
McCune
"Houston"
Morehead
Buxton
Dartnell
Coffeyville-Cherryvale
Brewster
Mound Valley
Price
Jefferson-Sycamore
Coleman
Sorghum-Hollow
Wayside-Havana
Caney
Tyro
Edna
Chetopa
Banzet
Lake Creek
Niotaze
Atyeo
Ritchey-Moore
Bradfield NW
Bradfield
Rock Creek
Fankhouser
Hubbard
DeMalorie-Souder
Madison
Lamont
Pixlee
Browning
Teeter
Hollis
Seeley-Wick
Virgil North
Hamilton
Scott
Zimmermann
Burkett
Thrall-Aagard
Gaffney
Virgil
Jobes
Hinchman
Blackwell
Polhamus
Wiggins
Quincy
Gilroy
"Kimbal"
Teichgraber
Wilkerson
Jackson
Sallyards
Eureka
Tonovay West
Tonovay
Blankenship
Stanhope
Reece
Burt
Toronto
Brinegar
Honey Creek
Climax
Willard
Smock-Sluss
Long
Young
"Lanier"
Garden
Augusta N.
Reynolds-Schaffer
Brickley
Eckel
Brickley SW
Lucas
Seward
Keighley
Bausinger
Haverhill
Leon
McCullough
Beaumont North
Beaumont
Beaumont South
Severy North
Severy
Four Mile Creek
Salter
Hickory Creek
Kramer-Stern
DeMoss
Brandt-Sensenbaugh
Ferrell
Augusta
Womack
Snowden-McSweeny
Bare
Fox-Bush
Semisch
Hartenbower
Steinhoff
Douglass
Muddy Creek
Mt. Tabor
Combs NE
Shinn
Hannah
Porter
Bush-Denton
Dunkleberger
"Perkins"
New Albany
Bruce
Rock North
Combs
Couch
Grouse Creek
Box
Ferguson NW
Ferguson W
Ferguson East
Dory
Love
Collyer
Udall
Trees
Rock
David
Clark
Eastman
Grand Summit
Schrader
Walker
Starr
Webb
Longton
Hale-Inge
Oak Valley
Smith
Diechman
Hittle
Dutch Creek
Elrod
Burden
Burden E
Mansur
Weathered
Frog Hollow East
Silver Creek
Biddle
State
Slick-Carson
Henderson
Frog Hollow
Turner North
Turner
School Creek
Oliver
Kingston
Malone
Landon-Floyd
McAllister
Wiggam
Stayton
Centennial N.
Centennial
Winfield
Stayton South
Winfield South
Turner West
Countryman
Thurlow
Rainbow Bend West
Graham
Rainbow Bend NE
Rainbow Bend
Seacat
Cabin Valley
Rahn NE
Doane
Geuda Springs
Enterprise NE
Enterprise SW
Canfield
Rahn
Otto
Cedarvale
Wauneta
Borroum
Lowe
Elgin
Peru-Sudan
Frazier
Harvey
Arkansas City West
Gibson
Millett
Nigger Creek
Bergkamp NW
Bergkamp
Murphy
McKay

MAP OF THE HUGOTON GAS AREA, SOUTHWESTERN KANSAS

showing oil and gas wells and dry holes

State Geological Survey of Kansas — Dec. 31, 1953 — Bulletin 107, Plate 2

EXPLANATION

- Oil wells
- Abandoned oil wells
- Dry holes drilled previous to 1952 (total depths given)
- Dry holes drilled in 1952
- Gas wells drilled previous to 1952
- Gas wells drilled in 1952
- Abandoned gas wells
- Dry holes drilled in 1953
- Gas wells drilled in 1953

R. 43 W. R. 42 W. R. 41 W. R. 40 W. R. 39 W. R. 38 W. R. 37 W. R. 36 W. R. 35 W. R. 34 W. R. 33 W. R. 32 W. R. 31 W.

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
SHALLOW WATER POOL
SCOTT COUNTY
GREELEY COUNTY
WICHITA COUNTY
NUNN POOL
PATTERSON POOL
DAMME NE POOL
DAMME POOL
DAMME SOUTH POOL
SONDEREGGER POOL
STEWART POOL
SYRACUSE
GARDEN CITY
LAKIN
BEYER POOL
FINNEY COUNTY
HASKELL COUNTY
GRAY
HAMILTON COUNTY
KEARNY CO
GRANT CO
COLORADO
JOHNSON
ULYSSES
SUBLETTE
STANTON COUNTY
MORTON COUNTY
STEVENS CO
SEWARD COUNTY
THIRTY-ONE POOL
DREYER POOL
WESTOLA POOL
RICHFIELD
RICHFIELD POOL
HUGOTON
KISMET POOL
KISMET SOUTH POOL
GREENWOOD POOL
KNEELAND POOL
LIBERAL
LIBERAL SE POOL
LIBERAL-LIGHT POOL
HAWKS POOL
MEADE
OKLAHOMA

No.	Field	Operator	Project	Location	Cooperative or unitized	Year started	Total developed acres	Possible additional 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 1952	No. active injection wells, 1952	No. injection wells drilled in 1952	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 1952, bbls.	No.
									GREENWOOD COUNTY, continued														
101	Seeley-Wick	Cities Service Oil Co.	Clopton	8-23-11E	Unit.	1946	260	0	"Bartlesville"	32	1,975	0	26	26	0	21	0	Salt water	Wells at 850' & produced	189	2,888	55,076	101
102	do	Magnolia Petro. Co.	Seeley Unit	4,5,6,9-23-11E	do	1943	555	0	do	-	1,950	0	62	62	0	60	0	do	Douglas	209	-	126,137	102
103	do	Pay Rock Oil, Inc.	Freeburg	22-22-11E	--	1952	50	20	do	25	1,900	0	2	2	1	1	0	do	▷Recycle	125	1,815	9,031	103
104	do	Phillips Petro. Co.	Beal	21,22,27,28-23-11E	Unit.	1950	473	0	do	55	1,900	0	55	55	0	50	26	do	Douglas	320	3,690	*	104
105	do	do	McGilvary	8,9,16,17-23-11E	do	1948	282	0	do	37	1,950	0	27	27	0	12	4	do	do	280	920	*	105
106	do	do	Seeley-Wick	28,33-22-11E 4-23-11E	do	1937	253	0	do	37	1,950	0	24	24	0	17	0	do	do	140	2,120	*	106
107	do	do	York, DeMaloris & O'Neal	29,32-22-11E	do	1937	286	0	do	47	1,950	0	33	33	1	29	0	do	do	200	7,200	*	107
108	do	do	York-Wescott	33-22-11E	do	1943	94	0	do	30	2,000	0	8	8	0	7	0	do	do	210	2,240	*	108
109	do	Skelly Oil Co.	Wick Water Flood	22,27,34-23-11E	Coop.	1943	570	0	do	20	1,975	0	38	38	3	19	1	do	do	250	1,070	*	109
110	Teeter	Cities Service Oil Co.	Teeter	10,11,14,15,16-23-9E	Unit.	1947	690	440	do	37	2,500	0	45	45	0	33	0	Salt & fresh	Lake, produced, & Arbuckle	230	458	71,503	110
111	do	Kirkpatrick & McGuire	Refiners Oil	20,21-23-9E	--	1951	62	0	do	36	2,550	0	5	5	1	2	0	Salt water	Douglas	297	-	236	111
112	do	Skelly Oil Co.	Shambaugh	2-23-9E	Coop.	1944	30	0	do	45	2,350	0	3	3	0	1	0	do	Salt water&sand	468	2,861	7,153	112
113	Thrall-Aagard	Arkansas Fuel Oil Co.	E. Marshall	1-24-9E	--	1944	84	0	do	37	2,300	0	10	10	0	5	0	do	1200' water&sand	209	4,035	44,311	113
114	do	Ohio Oil Co.	Martindell	6-24-10E	--	1948	366	0	do	50	2,300	1	42	43	0	36	2	do	Arbuckle	165	3,933	*	114
115	do	do	Olson-Anderson	11-24-9E	--	1944	98	0	do	42	2,200	2	8	10	0	5	0	do	Douglas	350	6,620	*	115
116	do	Phillips Petro. Co.	Aagard	14-24-9E	Unit.	1937	48	0	do	40	2,100	0	4	4	0	1	0	do	do	400	7,850	*	116
117	do	do	Cartwright	1-24-9E 6-24-10E 36-23-9E	do	1952	153	0	do	35	2,300	0	18	18	2	14	1	do	Arbuckle	250	1,700	*	117
118	do	do	Gard	14,22,23-24-9E	do	1938	110	0	do	70	2,150	0	16	16	0	7	0	do	Douglas	180	8,300	*	118
119	do	do	Lewis & Cannon	11,12-24-9E	do	1945	80	0	do	50	2,300	0	11	11	0	8	0	do	do	190	6,900	*	119
120	do	Sinclair Oil & Gas Co.	Thrall-McKee	28,29,30,32,33-23-10E	do	1949	644	0	do	31	2,300	0	80	80	0	62	0	Fresh & salt water	Douglas & surface pond	213	2,910	380,000	120
121	Virgil	Alf M. Landon	Hamilton	15,16,21,22-24-12E	--	1951	30	160	do	20	1,615	-	-	-	-	-	-	Salt water	Arbuckle & Douglas	-	-	-	121
122	Virgil North	Joe Phillips	Young	10-23-13E	--	1952	40	40	Mississippian	8	1,800	0	2	2	0	2	0	do	Kansas City	35	-	3,500	122
123	Wiggins	W. A. McGinnis	Wiggins	25,36-24-10E 19,30-24-11E	--	1954	-	-	"Bartlesville"	30	1,800	-	-	-	-	-	-	-	-	-	-	-	123
	Totals						10,688					4	1,061	1,065	25	756	82	Estimated additional secondary recovery production				27,550	
																						4,423,653	
									LABETTE COUNTY														
124	Price	Veeder Supply & Development Co.	Labette Flood	7,8-33-18E	Unit.	1952	30	-	"Bartlesville"	10-20	600	0	17	17	3	7	0	Salt water	Shallow & return water	50	-	7,200	124
									LINN COUNTY														
125	Centerville	Fell & Wolf Oil Co.	Group 6	10,11,13,14,24-21-22E	--	1936	250	-	"Squirrel"	-	-	-	-	-	-	-	-	Salt water	Produced	-	-	-	125
126	Goodrich-Parker	Deep Rock Oil Corp.	Goodrich	19,20,29,30-20-22E	--	1944	234	10	do	30	570	66	30	96	1	99	0	do	Arbuckle	11	1,357	30,971	126
127	LaCygne-Cadmus	do	LaCygne	2,3-20-23E 34,35,36-19-23E	--	1942	109	10	"Peru"	20	250	15	24	39	1	42	1	do	"Wilcox sand"	13	823	18,847	127
	Totals						593					81	54	135	2	141	1	Estimated additional secondary recovery production				17,700	
																						67,518	
									LYON COUNTY														
128	Atyeo	Barbara Oil Co.	Jones Water Flood	30-21-10E	Coop.	1948	50	80	"Bartlesville"	30	2,200	2	5	7	1	3	0	Salt water	Arbuckle	1,000	1,915	*	128
129	do	Ohio Oil Co.	Atyeo	30,31-21-10E	--	1947	280	0	do	35	2,200	0	36	36	0	25	1	do	do	200	4,560	*	129
130	Fankhauser	Phillips Petro. Co.	Lauck	32,33-21-12E	Unit.	1952	100	0	do	25	1,950	0	7	7	0	6	0	do	Douglas	250	2,590	*	130
	Totals						430					2	48	50	1	34	1					157,319	
									McPHERSON COUNTY														
131	Graber	Cities Prod. Corp.	Graber	31,32-21-1W	Coop.	1952	30	0	"Hunton"	25	3,250	0	4	4	1	0	0	Fresh water	Shallow well	100	1,407	19,215	131
132	do	Continental Oil Co.	do	20,21,28,29,30,31,32-21-1W	do	1947	2,000	0	do	50	3,200	0	58	58	0	20	0	Produced, fresh, & Lansing water	Wells & Lansing	239	983	637,460	132
133	Jenday	Barbara Oil Co.	Wedel-Smith	6,7,8-19-1W**	--	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	133
	Totals						2,030					0	62	62	1	20	0					656,675	
									MIAMI COUNTY														
134	Paola-Rantoul	J. Wm. Everhart	Big Lake	20-16-24E	Coop.	1953	66	-	"Peru"	22	400	0	0	0	16	19	19	Salt water	Arbuckle	60	None	None	134
135	Block	J. E. D. Oil Co.	H. Windler	21-18-24E	--	1948	-	-	"Squirrel"	20	480	0	3	3	0	0	0	Fresh water	Ponds	-	-	-	135
136	do	do	L. Windler	21-18-24E	--	1948	22	100	do	20	480	0	6	6	0	4	0	do	do	-	-	-	136
137	Paola-Rantoul	Andrus & Bryner	Fisher-Ayers	18,19-17-22E	--	1947	40	100	"Peru"	14	375	20	11	31	2	20	2	Salt water	Mississippian	40	3,000	9,100	137
138	do	Deep Rock Oil Corp.	N. Y. K. No. 2 & Seaborn	22,23,26,27-18-22E	--	1944	300	0	do	20	350	95	2	97	.0	107	0	do	Arbuckle	27	1,033	26,969	138
139	do	do	Producers	15,16,21,22,26,27-17-22E	--	1945	645	10	do	14	350	194	2	196	1	196	0	do	do	25	654	57,165	139
140	do	J. C. Hart	Travis	10-17-22E	--	1951	10	110	"Squirrel"	10-40	550-650	0	32	32	8	2	0	do	do	25	-	-	140
141	do	Henderson & Yolton	Grimes	28,33-16-24E	--	1953	30	50	"Peru"	18	400	5	0	5	10	2	0	Air	-	50 M cu.ft.	-	155	141
142	do	Sack-Brundred	Flood No. 1	23,25,26,36-16-21E 31-16-22E	Unit.	1947	147	0	"Squirrel"	30	670	94	20	114	0	93	0	Salt water	Arbuckle	60	3,906	60,440	142
143	do	do	Flood No. 2	5,6,8,9-17-22E	do	1945	153	0	do	30	670	48	54	102	0	90	0	do	do	52	3,117	241,514	143
144	do	The Spearow Co.	Spearow	14-18-22E	--	1951	-	-	"Peru"	-	-	-	-	-	-	-	-	Air	-	-	-	-	144
145	do	E. A. Whitworth	Whitworth & Walsh**	19-17-24E	--	1951	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	145
							413					486	130	586	37	533	21					395,343	
									MIAMI AND FRANKLIN COUNTIES														
146	Paola-Rantoul	Brundred Oil Corp.	Group 7	10,15,22,25,26,35-17-21E	Unit.	1943	681	0	"Squirrel"	25	650	240	30	270	0	220	0	Salt & fresh	River & produced	30	-	89,166	146
147	do	Sack-Brundred	No. 3	3,10,11,13,14,24-16-21E	do	1951	105	50	do	30	650	0	65	65	23	56	13	Salt water	Arbuckle	68	674	44,820	147
	Totals						786					240	95	335	23	276	13					133,986	
									MONTGOMERY COUNTY														
148	Caney	Alpine Oil & Gas Corp.	Roper	3-35-14E	--	1953	20	220	"Bartlesville"	17	1,296	0	11	11	0	3	2	Salt water	"Big Salt sand"	23	-	-	148
149	Coffeyville-Cherryvale	E. W. Hayes	Plute-McGuggin	7-34-17E	--	1946	-	-	"Peru"	20	-	-	-	-	-	-	-	Fresh water	City of Coffeyville	-	-	-	149
150	do	do	Reiter	9,10-34-17E	--	1948	-	-	do	-	-	-	-	-	-	-	-	Salt water	Arbuckle	-	-	-	150
151	do	Layton Oil Co.	Mardoc Flood	10-32-17E	--	1953	30	70	"Bartlesville"	20	715	0	3	3	2	6	6	Fresh water	City of Cherryvale	75	115	*	151
152	Jefferson-Sycamore	Gee Bee Oil Co.	Harvey	13-34-15E	--	1952	260	140	"Wayside"	20	375	0	4	4	0	2	0	do	Shallow sand	24	-	-	152
153	do	Kirkpatrick & McGuire	Speed Recovery, Inc.	22-33-15E	--	1952	12	0	"Bartlesville"	20	1,153	0	4	4	0	1	0	do	City of Independence	117	-	-	153
154	do	Layton Oil Co.	Radical Flood	34-31-16E 3-32-16E	--	1948	185	0	do	16	1,000	32	0	32	0	47	0	Salt water	Arbuckle & return	52	1,387	9,100	154
155	do	Sohio Petro. Co.	Bolton Flood	8,16,17-33-15E	--	1946	360	0	do	22	1,200	22	7	29	0	43	0	do	Arbuckle	148	1,356	30,200	155
156	do	Stekoll Petro. Co.	Bolt	36-32-14E; 31,32,33-32-15E; 12-33-14E; 4,5,6,7,8,9-33-15E	--	1945	1,700	0	do	11	1,200	-	313	313	1	322	0	Fresh & return	City of Independence	50	-	*	156
157	Neodesha	Layton Oil Co.	Flood No. 11	12-31-16E	--	1952	54	30	do	12	910	1	10	11	2	13	1	Salt water	Arbuckle	35	370	14,484	157
158	Wayside-Havana	Consolidated Gas, Oil, Mfg. Co.	Bell Nos. 1 & 2	10,11-34-14E	--	1944	47	50	"Wayside"	22	637	8	14	20	0	12	0	Salt & fresh	Wells & return	11	1,102	4,871	158
159	do	do	Flanagan Nos. 1 & 2	10,11-34-14E	--	1942	105	110	do	22	637	10	30	40	0	27	0	do	do	22	2,385	13,103	159
160	do	do	Havener	33-33-14E	--	1953	28	132	do	22	680	0	11	11	11	7	7	do	do	28	127	2,751	160
161	do	do	Shinn	11-34-14E	--	1945	40	60	do	22	636	0	26	26	0	13	0	do	do	11	2,044	6,835	161
162	do	Forest Oil Corp.	Flood No. 13	4,5-34-14E	--	1939	56	0	do	30	675	7	21	28	0	11	0	Salt water	Streams, "Big Salt" & oil sands	10	3,317	*	162
163	do	W. N. White	W. N. White Fee	10-34-14E	--	1943	-	-	do	18	650	0	17	17	0	9	0	do	230' salt sand	20	-	3,845	163
	Totals						2,897					76	471	549	16	516	16	Estimated additional secondary recovery production				27,000	
																						243,304	
									NEOSHO COUNTY														
164	Erie	E. W. Edwards	Edwards-Purviance	14,15,19-28-19E	Unit.	1949	5	70	"Peru"	25	575	0	5	5	1	4	0	Fresh	130' well	25	8,000	2,600	164
165	Humboldt-Chanute	Belleair Oil Corp.	Odense	7,8,18-27-20E 13-27-19E	--	1953	24	250	do	15	750	0	8	8	2	5	3	Salt water	Mississippian	50	150	*	165
166	do	do	Weiner Block	4,9-27-18E	--	1952	110	60	do	18	730	38	14	52	33	40	22	do	do	125	800	65,000	166
167	do	Keas Drilling Co.	Chanute	3,4,9,10,15,16-27-19E	--	1939	285	65	do	25	750	35	94	129	1	88	0	Salt & fresh	Gravel & return	50	-	100,384	167
168	do	Kirkpatrick & McGuire	Wells Project	6,7-28-19E	Coop.	1952	28	-	do	35	750	0	10	10	0	4	2	Salt water	Mississippian	99	82	2,300	168
169	do	do	do	14,15-27-19E	do	1952	35	-	do	30	825	0	23	23	0	4	2	do	do	107	47	*	169
170	do	M. F. A. Oil Co.		28,32,33,34-27-19E	do	1938	120	25-50	do	10-20	695	30	34	64	0	48	0	do	Arbuckle & return	35	-	30,000	170
171	do	Pioneer Oil Corp.	Chanute Flood No. 1	20,29-27-19E	do	1952	29	250	do	26	750	7	7	14	4	13	3	do	Roubidoux	48	-	9,100	171
172	do	Skiles Oil Co.	Chanute Water Flood	1,2,10,11,12,14,15,21,22,23,27-27-18E 7-27-19E	do	1937	1,300	250	do	20	750	441	0	441	0	464	0	Salt & fresh	Stream & produced	43	2,895	*	172
	Totals						1,956					551	195	746	41	670	32					346,763	
									PRATT AND KINGMAN COUNTIES														
173	Cunningham	Skelly Oil Co.	Cunningham press. main.	19,20,29,30,31-27-10W 25,26,35-27-11W	Owned 100%	1956	1,400	0	Lansing ls.	16	1,745	0	61	61	0	3	0	Gas	-	570 M cu.ft.	1,309	89,598	173
									RENO COUNTY														
174	Abbyville	Skelly Oil Co.	L. A. Smith Lease	24-24-8W	Owned 100%	1948	200	0	Lansing ls.	10	3,530	0	4	4	0	2	0	Salt water	Lansing & Topeka	100	-	-	174
175	Zenith-Peace Creek	Cities Service Oil Co.	Peace Creek	12-23-10W	Coop.	1951	40	1,000	Viola	10	3,750	0	3	3	0	1	0	do	Produced	650	1,365	2,060	175
	Totals						240					0	7	7	0	3	0					2,060	
									RICE COUNTY														
176	Wherry	Atlantic Refining Co.	Wherry	16-21-7W	--	1953	10	120	Miss. Congl.	15	3,375	0	4	4	0	1	0	Fresh water	Well	400	0	0	176
									RUSSELL COUNTY														
177	Fairport	Stanolind Oil & Gas Co.	Kate Austin	30,31-12-15W	Owned 100%	1952	80	60	Dodge & Lansing	90	3,000	0	4	4	0	1	0	Salt water	Dakota	1,200	290	14,215	177
178	Hall-Gurney	do	F. Krug "A"	27-14-14W	do	1952	160	80	Lansing	16	3,000	0	6	6	0	3	0	do	Dakota & well	351	20	3,206	178
	Totals						240					0	10	10	0	4	0					17,421	
									SEDGWICK COUNTY														
179	Robbins	Magnolia Petro. Co.	Henry Robbins	20-28-1E	--	1945	80	0	Mississippian	-	3,100	0	6	6	0	2	0	Salt water	Produced	200	-	10,785	179
180	do	Stanolind Oil & Gas Co.	Robbins Field	20-28-1E	Owned 100%	1947	220	0	Miss. "chat"	10	3,080	0	10	10	0	4	0	Salt & fresh	Shallow sand & Miss. "chat"	432	546	50,000	180
	Totals						300					0	16	16	0	6	0					60,785	
									SUMNER COUNTY														
181	Wellington	Cooperative Ref. Assn.	Wellington	33-31-1W	Unit.	1951	60	2,130	Mississippian	20	3,650	0	117	117	-	12	-	Salt water	Topeka & produced	-	-	14,700	181
									WOODSON COUNTY														
182	Neosho Falls	Susmio Oil Co.	Maynard, Remlinger, Wolfe	24-23-16E	No	1952	95	2	"Squirrel"	8	940	0	23	23	3	11	0	Salt water	Kansas City	17	-	15,689	182

* Production not to be revealed; included in county total.

** Abandoned during 1953.

†Includes 12 fractured producers.

‡Expect to start April 1954.

△Expect to start July 1954.

□Since April 1953.

▷From adjacent lease.

DATA ON SECONDARY RECOVERY PROJECTS IN KANSAS, 1953

No.	Field	Operator	Project	Location	Cooperative or unitized	Year started	Total developed acres	Possible additional acres	Producing formation	Thickness of producing zone, feet	Av. depth to producing zone, feet	Av. prod.	Active wells: Pumping	Active wells: Total	No. producing wells drilled in 1952	No. active injection wells, 1952	No. injection wells drilled in 1952	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 1952, bbls.	No.
									ALLEN COUNTY														
1	Bronson-Xenia	Mack C. Colt	K. B. Project	27,28-24-21E	--	1951	135	200	"Bartlesville"	18	700	0	45	45	31	41	20	Salt water	Arbuckle	35	1,385	126,651	1
2	do	Davis & Crowder	Bucks-Clemings**	26,34,35-24-21E	--	1940	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
3	Davis-Bronson	Mack C. Colt	M-T Project	3,10,15-24-21E	--	1937	-	-	"Bartlesville"	14	690	-	-	-	-	-	-	Salt water	Arbuckle	-	-	*	3
4	Elsmore Shoestring	Fees & Hoyt	Elsmore Shoestring	3,4-26-21E	No	1941	170	20	do	20	650	-	-	-	-	-	-	Fresh Arbuckle	Stream & well	-	-	-	4
				34-25-21E						28	700	-	-	-	-	-	-	Salt water	-	-	-	*	5
5	do	Pavlicek Brothers		?-26-21E	--	1944	-	-	do	20	720	0	14	14	2	4	0	do	Mississippian	20	-	*	6
6	Elsmore West	Eureka Oil & Gas Co., Inc.	Young & Newby	32-25-21E	--	1950	80	-	do	12	720	0	2	2	0	1	0	do	do	10	200	*	7
7	do	Robert T. Hansen	Seastedt	32-25-21E	Unit.	1953	1	232	do	10	840	0	7	7	5	2	2	Fresh water	Sand at 200'	40	-	300	8
8	Humboldt-Chanute	W. P. Callahan, Jr.	Whitaker Lease	19-26-19E	Coop.	1953	20	60	do	15	700	0	17	17	3	3	3	do	Stream and shallow wells	100	230	7,000	9
9	do	C and M Oil Co.	Wedin, Knox, Fewins	18,19-26-20E	--	1953	30	400	do	22	800	35	2	37	7	41	1	do	Neosho River	82	452	44,766	10
10	do	M. P. Darby	Petrolia	20,29-26-18E	--	1952	111	200	do	20	800	144	17	161	4	140	2	do	do	9	2,792	51,052	11
11	do	Deep Rock Oil Co.	Matson	16,17,18,19,20-26-18E	--	1938	380	20	do	10	840	0	8	8	0	7	0	Salt water	Mississippian	50	150	5,000	12
																				40	-	2,800	13
12	do	E. F. Gidley	Dimond	16-26-19E	--	1953	30	60	do	18	820	-	10	10	3	7	0	do	Arbuckle	-	-	*	14
13	do	H. L. Hauser	Hauser Farm	15-26-18E	--	1951	30	-	-	-	-	-	-	-	-	-	-	-	-				
14	do	M. F. A. Oil Co.	Yount-Davis	36-26-18E	--	1947	-	-	"Bartlesville"	8	800	-	-	-	-	-	-						
				1-27-18E																			
15	do	Donald P. Oak	Humboldt Leases	4,5,7,8-26-18E	--	1950	115	200	do	20	775	36	3	39	2	49	2	Fresh water	Neosho River	68	1,145	49,286	15
16	do	Stekoll Petro. Co.	Humboldt Unit	15,16,21,22-26-18E	--	1951	-	-	do	15	875	-	-	-	-	-	-	Salt water	Arbuckle	-	-	-	16
17	do	Weiner Petro. Co.	Humboldt Water Flood†	13,14,23,24-26-18E	--	1942	350	1,500	do	25	825	-	130	130	18	119	4	do	Mississippian	15	1,400	53,035	17
																		Estimated additional secondary recovery production				61,890	
	Totals						1,482					216	255	470	75	414	34					401,960	
									ANDERSON COUNTY														
18	Bush City Shoestring	Brundred Oil Corp.	Starit Lease	8,9,16,17-21-20E	--	1953	18	60	"Squirrel"	35	770	0	30	30	0	14	10	Salt water	Arbuckle	-	-	-	18
19	do	Deep Rock Oil Corp.	Reed, Connelly, Loriaux	4,5,7,8,18-21-21E	--	1939	975	10	do	30	820	404	13	417	11	392	0	do	do	23	1,996	194,009	19
				12,13,14-21-20E																			
20	do	do	Salmon Oil Corp.	7,15,16-21-20E	--	1949	356	35	do	20	800	82	34	116	4	112	1	do	Arbuckle & Mississippian	47	605	125,998	20
21	do	Kewanee Oil Co.	Dengo Flood	27,28,32,33-20-21E	Kewanee 100 %	1944	348	0	do	25	800	100	40	140	0	139	0	do	Arbuckle	8	1,930	89,714	21
				4-21-21E																			
22	Centerville	Schermerhorn Oil Corp.	Centerville Flood	4,10,15,22-21-21E	Unit.	1947	287	20	"Bartlesville"	15	725	64	6	70	10	46	3	do	Mississippian	70	1,010	113,052	22
23	Colony-Welda	W. S. Fees	Stauffer-North Hyde	22-22-19E	--	1947	20	-	"Squirrel"	15	800	0	13	13	0	7	0	do	Arbuckle	20	287,476	6,169	23
24	do	do	Unit No. 1	27,28,33-22-19E	Unit.	1949	360	0	do	15	800	0	82	82	2	36	5	do	do	26	29,259	39,056	24
25	Garnett Shoestring	Brundred Oil Corp.	Garnett	31-20-20E	do	1936	296	0	do	35	725	186	0	186	0	150	0	do	Mississippian	-	-	-	25
				1,2,3-21-19E																			
				5,6-21-20E																			
26	Kincaid	Texas Consolidated Oils	Kincaid	29,32-22-21E	--	1946	310	0	"Bartlesville"	12	710	64	3	37	1	44	0	do	Arbuckle	50	645	19,883	26
				4,5-23-21E																			
27	Selma	Mack C. Colt	Selma**	4,9,10-22-21E	--	1942	-	-	do	-	-	-	-	-	-	-	-	do	do	-	-	-	27
	Totals						2,968					869	221	1,090	28	940	19					587,881	
									BARBER COUNTY														
28	Sun City	Great Lakes Carbon Corp.	Sun City	27,28-30-15W	--	1952	250	0	"Massey lime"	5.8	4,350	0	8	8	0	1	0	Fresh water	Shallow wells	-	-	-	28
									BUTLER COUNTY														
29	Blankenship	Franco Central Oil Co.	Hughes Flood	9-26-8E	--	1951	80	0	"Bartlesville"	67	2,500	0	16	16	0	12	0	Salt water	Douglas	266	1,274	54,842	29
30	do	L. A. Seidenfeld	Sallyards Flood	9,16-26-8E	--	1954‡	60	0	do	37	2,560	0	6	6	1	-	-	do	-	-	-	-	30
31	do	Sohio Petro. Co.	do	9,16,17-26-8E	--	1949	158	20	do	45	2,500	0	17	17	0	18	1	do	Arbuckle	180	3,000	172,385	31
32	El Dorado	Cities Service Oil Co.	El Dorado Shallow-Atkins	20,21,28,29-25-5E	Coop.	1951	960	812	"El Dorado"	10	700	0	71	71	0	51	22	do	do	161	141	109,956	32
33	do	do	El Dorado Shallow-Pierpont	28,32,33-25-5E	do	1947	1,537	120	do	10	700	0	123	123	1	44	16	do	do	170	217	182,020	33
																				250	85	1,698	34
34	do	do	Finney	4,9-26-5E	do	1950	20	65	Simpson	24	2,550	0	1	1	0	2	0	do	Douglas	302	2,241	983,383	35
35	do	do	Koogler	17,18,19,20-26-5E	do	1948	1,140	400	do	25	2,500	0	134	134	25	69	6	do	Arbuckle & stream				
36	do	Magnolia Petro. Co.	Koogler No. 6	21,29,30-26-5E	--	1951	170	300	do	25	2,600	0	62	62	2	8	1	do	Produced & Arbuckle	260	-	580,774	36
37	El Dorado	Skelly Oil Co.	Page Flood	9-26-5E	Coop.	1950	30	0	"Wilcox sand"	30	2,550	0	3	3	0	1	0	do	Produced	163	843	*	37
38	Fox-Bush	Magnolia Petro. Co.	North Fox-Bush	23,24,25,26,35-28-5E	Unit.	1951	156	528	"Bartlesville"	40	2,760	0	44	44	0	15	0	do	Arbuckle, Kansas City, & Douglas	400	-	162,784	38
39	do	Morrison Producing Co.	North Fox-Bush Unit	1,2,11,12-29-5E	do	1942	890	1,040	do	31	2,800	0	17	17	5	4	0	Brine	Arbuckle	285	-	*	39
				35,36-28-5E																			
				34-27-5E	--	1952	-	-	do	-	-	-	-	-	-	-	-	-	-	-	-	-	40
40	Haverhill	Morris Sitrin																					41
41	Smock-Sluss	Beren & Associates	Smock	2-27-5E	--	1953	40	80	do	50	2,700	0	2	2	0	1	0	Salt water	Well 320'	-	-	-	
42	do	L. A. Seidenfeld	R. E. Sluss Farm	26-26-5E	Unit.	1952	80	-	do	40	2,764	0	1	1	0	0	0	do	Formation water	75	-	5,000	42
43	do	Skelly Oil Co.	Sluss Lease Flood	26-26-5E	--	1953	30	0	do	40	2,710	0	2	2	0	2	1	do	950' sand	160	22	659	43
44	do	The Texas Co.	Smock	2-27-5E	--	1951	40	-	do	25	2,675	0	6	6	0	1	0	Water	Produced	100	43	*	44
																		Estimated additional secondary recovery production				400	
	Totals						5,391					0	505	505	34	228	47					2,307,709	
									BUTLER AND GREENWOOD COUNTIES														
45	Blankenship	Tide Water Assoc. Oil Co.	Blankenship	9,10,16,17,21-26-8E	Coop.	1949	426	45	"Bartlesville"	36	2,450	0	45	45	4	43	0	Salt water	Arbuckle	150	2,245	313,500	45
									CHAUTAUQUA COUNTY														
																				36	-	-	46
46	Peru-Sedan	C. B. Reed	Huffman Lease	25-34-11E	--	1953	160	0	"Peru"	15	1,080	0	9	9	0	1	1	Salt water	fresh Wells	-	-	-	47
47	do	Sinclair Oil & Gas Co.	A. Casement	32-33-11E	--	1935	210	-	do	25	1,150	-	-	-	-	-	-		-	50	-	-	48
48	do	G. B. & C. E. Suppes	Suppes	27-34-12E	--	1952	160	0	do	25	1,150	0	13	13	0	1	0	Salt water	"Peru sand"				
	Totals						530					0	22	22	0	2	1	Estimated secondary recovery production				19,000	
									COWLEY COUNTY														
																							49
49	Bruce	Shawver Petro. Corp.	Davis	9-30-4E	--	1952	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50
50	Eastman	The Texas Co.	Eastman	6-30-6E	--	1929	120	117	"Bartlesville"	13.5	2,850	0	19	19	0	8	0	Salt water & gas	"Bartlesville"	600 M cu.ft. 365 bbls.water	3,869	15,497	
				31-31-6E																343	-	-	51
51	Frog Hollow	Carter Oil Co.	Frog Hollow Pilot Flood	16,20,21-32-5E	Coop.	1952	25	200	do	15	3,050	0	4	4	0	2	0	Salt water	do	120	9,415	1,601	52
52	Hittle	The Texas Co.	Layton Flood	21-31-4E	--	1945	80	0	"Layton"	20	2,400	0	1	1	0	2	0	do	Produced, "Layton," & Arbuckle				
				12,13-34-5E	--	1951	All	-	"Bartlesville"	20-30	2,850	0	6	6	0	4	0	Fresh water	Well	300	-	-	53
53	Rahn	B. B. Blair	Rahn Unit	6,7-34-6E																300	-	-	54
				13-34-5E	--	1954△	160	0	do	20-30	2,850	0	3	3	0	2	0	Salt water	do	-	-	-	55
54	do	do	do	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56
55	do	Continental Oil Co.	do	14,22,23-34-5E	--	1952	-	-	-	-	-	-	-	-	-	-	-	Salt water	"Bartlesville"	200	-	-	57
56	Rainbow Bend	Mead Production Co.	Hunt	16,21-33-5E	Coop.	1952	80	80	"Bartlesville"	20	3,200	0	5	5	1	2	0	Fresh & salt	50' wells & gravel beds	514	216	112,140	
57	do	Sunray Oil Corp.	Rainbow Bend Water Flood	16,17,20,21,28,29-33-5E	--	1952	575	0	do	29	3,250	0	40	40	0	22	0						
				11,12-30-4E	Unit.	1952	40	20	do	14	2,700	0	5	5	0	3	0	Salt water	"Stalnaker"	300	-	-	58
58	Rock	Cooperative Ref. Assn.	Rock Unit No. 1	11,14,15,16-30-4E	do	1950	420	80	do	20	2,800	0	22	22	3	15	0	do	do	150	500	100,000	59
59	do	Stelbar Oil Corp., Inc.	Rock Unit	28-31-3E	--	1946	40	0	"Stalnaker"	5	2,100	0	3	3	0	1	0	do	do	40	2,059	-	60
60	Weathered	Frost & Bennett	Weathered	24-32-4E	Coop.	1948	15	0	"Bartlesville"	38	2,980	0	3	3	0	1	0	do	"Bartlesville" & "Layton"	237	1,000	3,500	61
61	Winfield	Gulf Oil Corp.	M. Shannon Lease	24-32-4E	--	1948	-	-	do	20	3,000	-	-	-	-	-	-	do	Produced	-	-	-	62
62	do	Sinclair Oil & Gas Co.	Sinclair															Estimated additional secondary recovery production				34,836	
	Totals						1,555					0	111	111	4	62	0					267,574	
									CRAWFORD COUNTY														
63	McCune	Donald P. Oak	McCune	19,29,30,31-30-22E	--	1942	200	100	"Bartlesville"	20	250	145	5	150	2	150	0	Salt water	Arbuckle	24	294*	27,384□	63
				1-31-21E																			
				6-31-22E																			
64	"Houston"	Tri-State Oil Producers, Inc.	Houston-Billington	5-31-22E	Coop.	1953	370	-	do	30	170	10	35	45	0	10	0	Fresh water	130'	-	-	-	64
65	St. Paul-Walnut	Walters Drilling Co.	O'Brien Lease	26,35-28-21E	--	1953	20	250	do	15	395	0	8	8	8	9	9	Salt water	Arbuckle	10	-	-	65
66	Walnut Southeast	Deep Rock Oil Corp.	Walnut	28-28-22E	--	1951	15	70	do	12	385	0	7	7	2	9	0	do	do	11	991	6,288	66
67	do	E. M. Marshall	Westhoff, Foster & McDaniels	29,31-28-22E	--	1941	-	-	do	30	375	-	-	-	-	-	-	Salt & fresh	Stream & Arbuckle	-	-	-	67
																		Estimated additional secondary recovery production				1,000	
	Totals						605					155	55	210	12	178	9					34,672	
									ELK COUNTY														
68	New Albany	A. E. Basinger	New Albany	3,4-29-15E 33,34-28-15E	--	1937	-	-	"New Albany"	20	265	-	-	-	-	-	-	-	-	-	-	-	68
									FRANKLIN COUNTY														
69	Paola-Rantoul	Barnett Oil Co.	Harley-Finch	10-17-21E	--	1949	75	85	"Squirrel"	15	600	0	20	20	0	26	0	Fresh & produced	Stream & produced	23	814	19,137	69
70	do	Brundred Oil Corp.	Group No. 3	4,8,9,16,17,20-16-21E	Unit.	1950	205	5	do	30	640	2	72	74	3	66	3	Salt water	Mississippian	33	-	167,160	70
71	do	Deep Rock Oil Corp.	Heminger-Finch	20,28,29-16-21E	--	1951	190	30	do	20	800	11	46	57	12	62	4	do	do	33	548	69,106	71
72	do	do	Heminger-Finch	27,34-16-21E	--	1948	140	20	do	12	580	32	17	49	1	52	0	do	do	12	1,216	21,288	72
73	do	Williams Oil Co.	Johnson Rantoul Flood	7,8-18-21E	No	1949	254	?	do	16	620	-	-	-	-	-	-	Fresh	Surface	-	-	-	73
																		Estimated additional secondary recovery production				25,000	
	Totals						864					45	155	200	16	206	7					301,691	
									GREENWOOD COUNTY														
74	Atyeo	Cities Service Oil Co.	Atyeo	6-22-10E	Coop.	1952	160	35	"Bartlesville"	39	2,240	0	22	22	6	19	5	Salt water	Arbuckle	129	1,789	187,472	74
75	Browning	Sinclair Oil & Gas Co.	Browning	19,20,29,30-22-10E	Unit.	1949	170	1,000	do	51	2,300	0	71	71	0	18	0	Fresh & salt water	Douglas & stream	219	164	8,000	75
76	Burkett	Phillips Petro. Co.	Burkett	13,23,24,26,27-23-10E	do	1942	648	0	do	38	2,100	0	86	86	0	59	0	Salt water	Douglas	220	7,220	*	76
				18-23-11E																			
77	DeMalorie-Souder	L. B. Campbell	Derbyshire	13-22-10E	--	1952	40	35	do	35	2,130	0	3	3	0	1	0	do	do	150	-	4,775	77
78	do	Cities Service Oil Co.	Greenwood	19,30-22-11E	Unit.	1952	66	0	do	30	2,050	0	6	6	1	6	1	do	Verdigris R. & produced	150	526	25,516	78
79	do	Mid-Continent Petro. Corp.	J. D. Clopton	18-22-11E	Coop.	1946	160	40	do	25	2,100	0	11	11	2	7	1	do	Douglas & produced	623	862	40,290	79
80	do	Phillips Petro. Co.	DeMalorie-Souder	1,2,11,12-22-10E	Unit.	1949	629	0	do	55	2,100	0	35	35	0	36	13	do	Douglas	220	430	*	80
81	do	do	Pix																	70	2,680	*	81
81	do	do	Pix	3,10-22-10E	do	1949	25	0	do	55	2,100	0	3	3	0	2	0	do	do	600	0	0	82
82	do	do	Sowder "B"	7-22-11E	do	1953	27	0	do	30	2,100	0	2	2	0	2	2	do	Arbuckle	-	-	*	83
83	do	George Sheehan	J. D. Clopton	18-22-11E	Coop.	1952	-	-	-	-	-	-	-	-	-	-	-	do	Douglas	280	2,130	14,796	84
84	Fankhauser	Cities Service Oil Co.	Fankhauser	4-22-12E	do	1950	7	0	"Bartlesville"	24	1,760	0	5	5	0	3	0	do	Produced	261	5,332	101,357	85
85	do	Sunray Oil Corp.	Fankhauser Unit	4-22-12E	Unit.	1949	246	0	do	25	1,900	0	27	27	0	19	0	Fresh	Douglas & return	287	1,092	7,032	86
86	do	do	Swanson Unit	9-22-12E	do	1950	45	0	do	19	1,800	0	3	3	0	4	0	do	do	80	-	2,000	87
87	Hamilton	Associated Resources Corp.	Associated Resources Corp.	8,9-24-12E	--	1951	80	80	do	12-20	1,700	0	7	7	1	3	2	Salt water	Douglas				
88	do	Cities Service Oil Co.	Patterson	36-23-11E	Coop.	1947	200	0	do	54	1,780	0	29	29	0	10	0	do	Stream, produced & Douglas	176	9,412	59,488	88
				8-24-12E	--	1953	96	160	do	20	1,740	0	5	5	0	4	4	do	Douglas	45	-	14	89
89	do	R. E. Evans	Lyke (Smith)	24,25,26-22-12E	Unit.	1949	800	0	do	42	1,650	0	39	39	2	41	1	do	Douglas & Verdigris R.	143	861	165,406	90
90	Lamont	Cities Service Oil Co.	Lamont	11,12,14-22-11E	Coop.	1948	985	0	do	38	1,890	0	55	55	1	38	13	do	Arbuckle & Verdigris R.	275	569	288,614	91
91	Madison	do	Madison	11,12-22-11E	Unit.	1949	65	-	do	-	1,800	0	6	6	0	6	0	do	Douglas	278	-	121,168	92
92	do	Magnolia Petro. Co.	Kipfer-McGilvary	8,9,17-22-10E	--	1947	100	0	do	25	2,250	0	16	16	1	11	0	do	do	2,300	1,819	16,944	93
93	Pixlee	Barbara Oil Co.	Browning-Pixlee	27,34-24-9E	--	1949	195	20	do	34	2,200	1	28	29	1	30	0	do	do	140	5,000	141,487	94
94	Polhamus	Sohio Petro. Co.	Polhamus Flood	4-25-9E																			
				9-25-13E	Coop.	1951	20	-	do	20	1,500	-	-	-	-	-	-	Fresh water	186' well	-	-	-	95
95	Quincy	Alf M. Landon	Webber Flood	25,36-25-8E	do	1953	76	125	do	40	2,400	0	10	10	2	5	5	Salt water	Douglas	100	97	*	96
96	Sallyards	Ohio Oil Co.	Bryden-Ladd	30-25-9E	--	1951	71	-	do	40	2,400	0	8	8	0	6	0	do	do	100	1,404	*	97
97	do	do	Hoffman	19,20-25-9E	--	1951	79	10	do	40	2,400	0	8	8	0	5	0	do	do	200	1,118	*	98
98	do	do	Ladd "A"	19,30-25-9E	Unit.	1946	205	0	do	50	2,400	0	19	19	0	17	0	do	do	200	4,667	*	99
99	do	do	Ladd Unit	24,25,26-23-8E	do	1945	235	100	do	40	2,600	0	38	38	0	12	1	do	do	410	1,680	*	100
100	Scott	Phillips Petro. Co.	Scott	19,30-23-9E																			