

STATE OF ILLINOIS

William G. Stratton, Governor  
DEPARTMENT OF REGISTRATION AND EDUCATION  
Vera M. Binks, Director

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1959

# PETROLEUM INDUSTRY IN ILLINOIS IN 1957

Part I. Oil and Gas Developments

Part II. Waterflood Operations

Alfred H. Bell  
Virginia Kline  
Carl W. Sherman

BULLETIN 85

ILLINOIS STATE GEOLOGICAL SURVEY

JOHN C. FRYE, *Chief*

URBANA, ILLINOIS

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**Urbana, Illinois**

**1959**

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# PETROLEUM INDUSTRY IN ILLINOIS, 1957

ALFRED H. BELL, VIRGINIA KLINE, and CARL W. SHERMAN

## PART I

### OIL AND GAS DEVELOPMENTS

#### ABSTRACT

Illinois produced 76,649,000 barrels of oil in 1957, a decrease of 7 percent from the 82,314,000 barrels produced in 1956; the decrease marks a change in trend following three years of steadily increasing production beginning in 1954. The 2585 wells completed in 1957 represent a 29 per cent decrease from the 3640 wells drilled in 1956. The decrease in production was due partly to decline in drilling but mostly to refinery strikes during the summer which forced temporary shut-downs in some pools.

Forty-one percent of the 1957 completions were successful. Fifteen new oil pools, one gas pool, 51 extensions to pools, and 16 new pays were discovered in 1957.

Reserves are estimated at 667.3 million barrels on January 1, 1958, 34.3 million barrels below the estimate for January 1, 1957.

#### INTRODUCTION

The purpose of this report on the petroleum industry in Illinois in 1957 is to set forth, in a form convenient for reference, as much information as possible on oil and gas development, production, economics, exploratory drilling, discoveries, reserves, and on the geologic occurrence of oil and gas. This report is an expansion of a summary report covering similar ground in the annual volume "Statistics of Oil and Gas Development and Production," published by the Society of Petroleum Engineers of the American Institute of Mining and Metallurgical Engineers.

Developments are discussed by county. The county maps showing oil pools, which were included in Bulletins 79, 81, and 83, have been omitted but the set (on a scale of 4 miles to the inch) may be purchased separately. The table of oil producing strata, published as table 11 in Bulletin 83, has been omitted but will be included in the bulletin for 1958.

We gratefully acknowledge the cooperation of the many oil companies and individuals who contributed basic data for this report. The part on estimated petroleum reserves was prepared by Margaret Oros and Lester L. Whiting of the Illinois State Geological Survey's Oil and Gas Section and the part on gas and gas products by

Whiting and Wayne F. Meents of the same section. J. Van Den Berg and Ronald A. Younker, both of the Survey staff, also assisted in preparing the report.

Part II on waterflood operations was prepared by Carl Sherman, assisted by Donald A. Pierre and Anthony Richards of the Petroleum Engineering Section. Tables and maps are based on data furnished by the operators through the Illinois Secondary Recovery and Pressure Maintenance Study Committee of the Interstate Oil Compact Commission.

#### PRODUCTION AND VALUE

Oil production in Illinois in 1957 was 76,649,000 barrels, a decrease of 7 percent from the 82,314,000 barrels produced in 1956. However, Illinois remained in eighth place among the oil-producing states.

The 1956 production was the highest since 1943. Peak production was attained in 1940, after which production gradually declined to a low of 59,025,000 barrels in 1953, increased to the 1956 peak, and in 1957 declined by 5,665,000 barrels. Some decline had been anticipated because production had begun leveling off in late 1956.

Major cause of the production decline was a strike by five refineries of the Standard Oil Company of Ohio that began June 7. Shipments of crude oil by Sohio Pipe



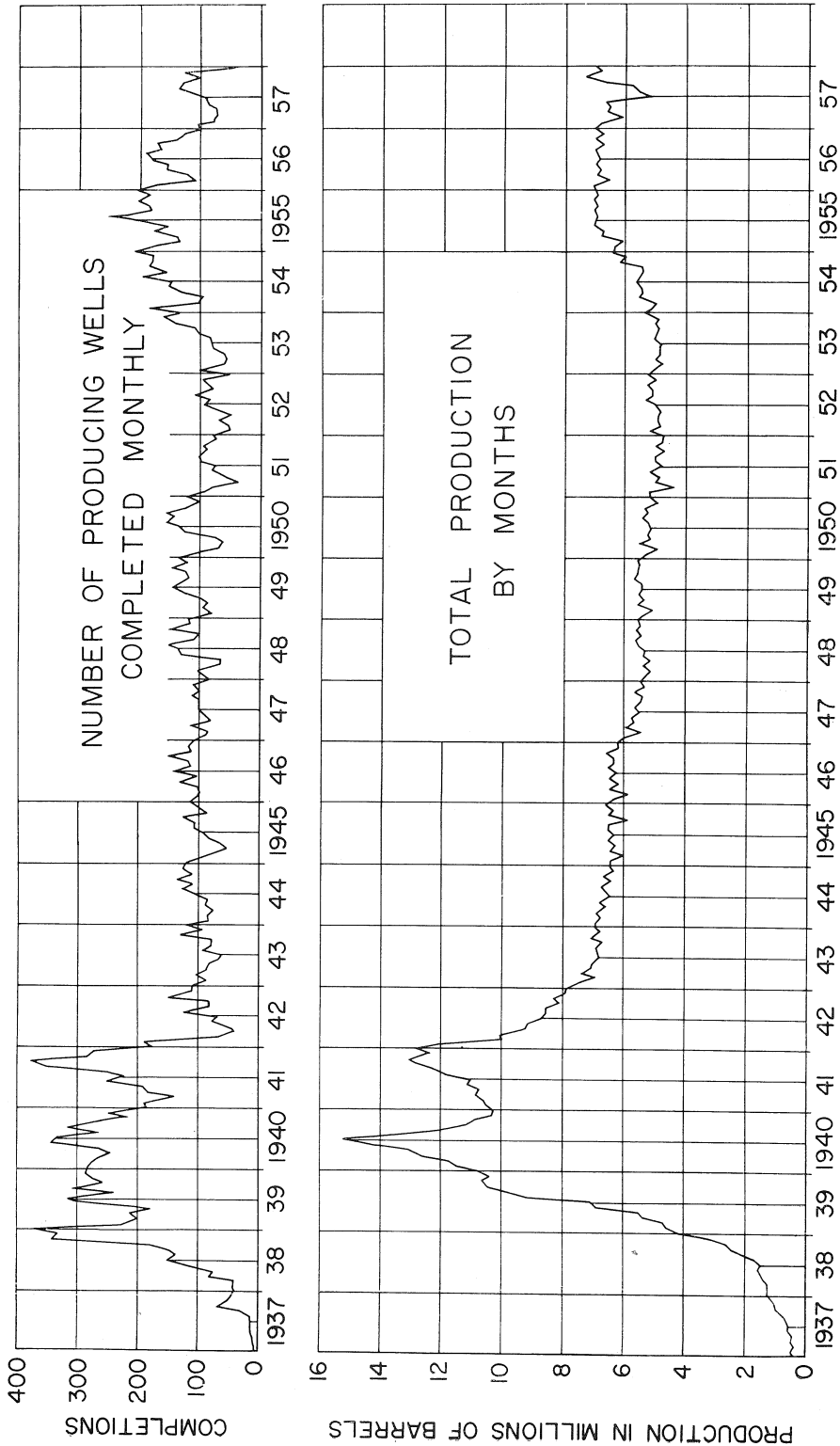


Fig. 1. — Oil production in Illinois, 1937-1957.

Line, the largest oil transportation company in Illinois, were stopped until emergency outlets for the oil could be found. In some cases entire pools were temporarily shut down. During June and July, daily average production dropped to a low of 40,000 to 50,000 barrels below normal. For a short time in October, after the refineries reopened, daily production was high (238,000 b.p.d.) while storage tanks were emptied. Probably about two-thirds of the 5,665,000 barrel drop in production for the year was the result of the refinery shut down, and the actual loss in productive capacity was much smaller than it appears to be.

Daily average production by months was as follows:

| Month          | Barrels | Month           | Barrels |
|----------------|---------|-----------------|---------|
| January . . .  | 216,000 | July . . .      | 179,000 |
| February . . . | 217,000 | August . . .    | 185,000 |
| March . . .    | 213,000 | September . . . | 222,000 |
| April . . .    | 217,000 | October . . .   | 238,000 |
| May . . .      | 213,000 | November . . .  | 226,000 |
| June . . .     | 171,000 | December . . .  | 224,000 |

At the beginning of 1957, most of the crude oil in Illinois was selling at \$2.90 per barrel. A 25-cent increase in January raised the price to \$3.15 per barrel, where it remained for about 11 months. In mid-December, purchasers of crude oil began cutting the price to \$3.00. At the end of the year both prices (\$3.00 and \$3.15) were in effect. Value (at the wells) of crude oil produced in Illinois in 1957 was about \$239,911,000. To this should be added the value of natural gasoline and liquefied petroleum gas extracted from Illinois natural gas, estimated at \$3,000,000, making a total of \$242,911,000.

## DRILLING AND DEVELOPMENT

A total of 2,585<sup>1</sup> wells were drilled for oil and gas in Illinois in 1957 (tables 1 and 2), a decrease of 29 percent from the 3,640 wells drilled in 1956. Of the 2,585 wells

<sup>1</sup>Well completion figures are based on reports received from the Illinois Basin Scout Association. An undetermined number of additional wells were completed in the old fields of Clark, Crawford, Cumberland, Lawrence, and adjoining counties, for the most part in waterflood areas.

TABLE 1.—WELL COMPLETIONS AND OIL PRODUCTION SINCE JANUARY 1, 1936

| Period of time | Number of completions <sup>a</sup> | Number of producing wells | Production (M bbls.) <sup>b</sup> |                         |         |
|----------------|------------------------------------|---------------------------|-----------------------------------|-------------------------|---------|
|                |                                    |                           | New fields                        | Old fields <sup>c</sup> | Total   |
| 1936 . . .     | 93                                 | 52                        |                                   |                         | 4,445   |
| 1937 . . .     | 449                                | 292                       | 2,884                             | 4,542                   | 7,426   |
| 1938 . . .     | 2,536                              | 2,010                     | 19,771                            | 4,304                   | 24,075  |
| 1939 . . .     | 3,617                              | 2,970                     | 90,908                            | 4,004                   | 94,912  |
| 1940 . . .     | 3,755                              | 3,080                     | 142,969                           | 4,678                   | 147,647 |
| 1941 . . .     | 3,807                              | 2,925                     | 128,993                           | 5,145                   | 134,138 |
| 1942 . . .     | 2,017                              | 1,179                     | 101,837                           | 4,753                   | 106,590 |
| 1943 . . .     | 1,791                              | 1,090(20) <sup>d</sup>    | 77,581                            | 4,675                   | 82,256  |
| 1944 . . .     | 1,991                              | 1,229(12)                 | 72,946                            | 4,467                   | 77,413  |
| 1945 . . .     | 1,763                              | 1,094(15)                 | 70,839                            | 4,371                   | 75,210  |
| 1946 . . .     | 2,362                              | 1,387(17)                 | 70,174                            | 5,123                   | 75,297  |
| 1947 . . .     | 2,046                              | 1,102(22)                 | 61,455                            | 5,004                   | 66,459  |
| 1948 . . .     | 2,489                              | 1,316(21)                 | 59,623                            | 5,185                   | 64,808  |
| 1949 . . .     | 2,741                              | 1,447(32)                 | 58,571                            | 5,930                   | 64,501  |
| 1950 . . .     | 2,894                              | 1,328(23)                 | 55,794                            | 6,234                   | 62,028  |
| 1951 . . .     | 2,383                              | 947(23)                   | 54,147                            | 6,097                   | 60,244  |
| 1952 . . .     | 2,077                              | 854(35)                   | 53,727                            | 6,344                   | 60,071  |
| 1953 . . .     | 2,161                              | 1,161(88)                 | 51,924                            | 7,101                   | 59,025  |
| 1954 . . .     | 3,254                              | 1,896(107)                | 59,130                            | 7,810                   | 66,940  |
| 1955 . . .     | 3,885                              | 2,164(62)                 | 72,016                            | 9,115                   | 81,131  |
| 1956 . . .     | 3,640                              | 1,742(85)                 | 71,645                            | 10,669                  | 82,314  |
| 1957 . . .     |                                    |                           |                                   |                         |         |
| Jan. . .       | 224                                | 105(1)                    | 5,875                             | 826                     | 6,701   |
| Feb. . .       | 168                                | 76(2)                     | 5,308                             | 773                     | 6,081   |
| March . . .    | 189                                | 70(2)                     | 5,766                             | 831                     | 6,597   |
| Apr. . .       | 176                                | 70(3)                     | 5,671                             | 851                     | 6,522   |
| May . . .      | 207                                | 87(4)                     | 5,773                             | 840                     | 6,613   |
| June . . .     | 229                                | 89(4)                     | 4,365                             | 753                     | 5,118   |
| July . . .     | 224                                | 86(5)                     | 4,702                             | 850                     | 5,552   |
| Aug. . .       | 291                                | 133(4)                    | 4,923                             | 807                     | 5,730   |
| Sept. . .      | 251                                | 124(3)                    | 5,856                             | 807                     | 6,663   |
| Oct. . .       | 239                                | 101(5)                    | 6,501                             | 873                     | 7,374   |
| Nov. . .       | 263                                | 124(10)                   | 5,937                             | 831                     | 6,768   |
| Dec. . .       | 124                                | 49(3)                     | 6,074                             | 856                     | 6,930   |
|                | 2,585                              | 1,114(46)                 | 66,751                            | 9,898                   | 76,649  |

<sup>a</sup> Includes only oil and gas producers and dry holes; no service wells.

<sup>b</sup> Production figures based on Illinois Basin Scout Association's Pipe Line Production Report.

<sup>c</sup> Includes Devonian production at Sandoval and Bartleso.

<sup>d</sup> Figures in parentheses refer to number of producing wells included in totals which previously had been completed as dry holes.

completed in 1957, 1,045 were oil wells, 23 were gas, 793 were dry holes in pools, and 724 were unsuccessful wildcats. No gas was marketed from the gas wells.

The percentage of successful well completions has been decreasing for the past three years: from 55 percent in 1955 to

TABLE 2.—SUMMARY OF DRILLING AND INITIAL PRODUCTION BY COUNTIES, 1957<sup>a</sup>

| County               | Number of wells drilled |                 |     |                 |                           |                          | Total initial production |             |                 | Footage drilled |  |
|----------------------|-------------------------|-----------------|-----|-----------------|---------------------------|--------------------------|--------------------------|-------------|-----------------|-----------------|--|
|                      | Total completions       | Total producing |     | Total dry holes |                           |                          | Oil (bbls.)              | Gas (MMcf.) | Producing wells | Total           |  |
|                      |                         | Oil             | Gas | In pools        | Wildcat near <sup>b</sup> | Wildcat far <sup>c</sup> |                          |             |                 |                 |  |
| Adams . . . . .      | 13                      | 0               | 3   | 2               | 2                         | 6                        | 0                        | 1,200       | 1,422           | 8,502           |  |
| Alexander . . . . .  | 2                       | 0               | 0   | 0               | 0                         | 2                        | 0                        | 0           | 0               | 990             |  |
| Bond . . . . .       | 65                      | 16              | 0   | 28              | 13                        | 8                        | 336                      | 0           | 15,343          | 104,309         |  |
| Brown . . . . .      | 6                       | 0               | 0   | 0               | 0                         | 6                        | 0                        | 0           | 0               | 4,730           |  |
| Bureau . . . . .     | 1                       | 0               | 0   | 0               | 0                         | 1                        | 0                        | 0           | 0               | 2,702           |  |
| Champaign . . . . .  | 4                       | 0               | 0   | 0               | 0                         | 4                        | 0                        | 0           | 0               | 3,649           |  |
| Christian . . . . .  | 111                     | 59              | 0   | 22              | 8                         | 22                       | 8,725                    | 0           | 109,377         | 216,951         |  |
| Clark . . . . .      | 84                      | 45              | 0   | 29              | 6                         | 4                        | 1,259                    | 0           | 54,423          | 97,488          |  |
| Clay . . . . .       | 103                     | 46              | 0   | 39              | 17                        | 1                        | 3,384                    | 0           | 126,479         | 297,016         |  |
| Clinton . . . . .    | 83                      | 19              | 3   | 10              | 29                        | 22                       | 899                      | 1,550       | 48,965          | 183,662         |  |
| Coles . . . . .      | 60                      | 27              | 0   | 11              | 8                         | 14                       | 6,504                    | 0           | 50,732          | 97,574          |  |
| Crawford . . . . .   | 158                     | 75              | 2   | 72              | 9                         | 0                        | 4,015                    | 1,500       | 87,886          | 208,095         |  |
| Cumberland . . . . . | 8                       | 1               | 0   | 3               | 0                         | 4                        | 2                        | 0           | 380             | 9,687           |  |
| DeWitt . . . . .     | 1                       | 0               | 0   | 0               | 0                         | 1                        | 0                        | 0           | 0               | 1,404           |  |
| Douglas . . . . .    | 115                     | 51              | 0   | 28              | 20                        | 16                       | 14,146                   | 0           | 87,211          | 190,973         |  |
| Edgar . . . . .      | 16                      | 2               | 0   | 2               | 5                         | 7                        | 6                        | 0           | 858             | 10,460          |  |
| Edwards . . . . .    | 37                      | 10              | 0   | 14              | 13                        | 0                        | 608                      | 0           | 30,762          | 147,685         |  |
| Effingham . . . . .  | 42                      | 12              | 0   | 13              | 8                         | 9                        | 683                      | 0           | 30,070          | 110,347         |  |
| Fayette . . . . .    | 23                      | 8               | 0   | 3               | 4                         | 8                        | 447                      | 0           | 13,074          | 58,116          |  |
| Ford . . . . .       | 6                       | 0               | 0   | 0               | 0                         | 6                        | 0                        | 0           | 0               | 4,317           |  |
| Franklin . . . . .   | 63                      | 31              | 0   | 18              | 11                        | 3                        | 4,358                    | 0           | 93,411          | 194,992         |  |
| Gallatin . . . . .   | 81                      | 51              | 0   | 23              | 5                         | 2                        | 2,421                    | 0           | 123,271         | 205,668         |  |
| Hamilton . . . . .   | 158                     | 71              | 0   | 58              | 25                        | 4                        | 17,282                   | 0           | 184,496         | 522,948         |  |
| Hancock . . . . .    | 2                       | 0               | 0   | 0               | 0                         | 2                        | 0                        | 0           | 0               | 2,507           |  |
| Jackson . . . . .    | 4                       | 0               | 0   | 2               | 0                         | 2                        | 0                        | 0           | 0               | 5,830           |  |
| Jasper . . . . .     | 56                      | 29              | 0   | 16              | 9                         | 2                        | 1,705                    | 0           | 72,269          | 144,169         |  |
| Jefferson . . . . .  | 89                      | 36              | 0   | 33              | 16                        | 4                        | 4,385                    | 0           | 103,147         | 257,018         |  |
| Johnson . . . . .    | 1                       | 0               | 0   | 0               | 0                         | 1                        | 0                        | 0           | 0               | 926             |  |
| Kankakee . . . . .   | 1                       | 0               | 0   | 0               | 0                         | 1                        | 0                        | 0           | 0               | 2,343           |  |
| LaSalle . . . . .    | 1                       | 0               | 0   | 0               | 0                         | 1                        | 0                        | 0           | 0               | 3,659           |  |

|                      |       |       |    |     |     |     |         |        |           |           |
|----------------------|-------|-------|----|-----|-----|-----|---------|--------|-----------|-----------|
| Lawrence . . . . .   | 147   | 93    | 0  | 45  | 5   | 4   | 3,552   | 0      | 149,346   | 249,467   |
| Macon . . . . .      | 16    | 5     | 0  | 5   | 5   | 1   | 478     | 0      | 10,024    | 33,125    |
| Macoupin . . . . .   | 12    | 0     | 0  | 1   | 4   | 7   | 0       | 0      | 0         | 11,100    |
| Madison . . . . .    | 20    | 1     | 0  | 3   | 4   | 12  | 7       | 0      | 590       | 30,432    |
| Marion . . . . .     | 82    | 42    | 0  | 24  | 10  | 6   | 4,569   | 0      | 123,965   | 228,369   |
| Mercer . . . . .     | 2     | 0     | 0  | 0   | 0   | 2   | 0       | 0      | 0         | 4,060     |
| Montgomery . . . . . | 44    | 0     | 1  | 4   | 10  | 29  | 0       | 0.055  | 620       | 65,996    |
| Morgan . . . . .     | 2     | 0     | 0  | 1   | 0   | 1   | 0       | 0      | 0         | 2,343     |
| Moultrie . . . . .   | 11    | 0     | 0  | 0   | 2   | 11  | 0       | 0      | 0         | 27,392    |
| Perry . . . . .      | 31    | 8     | 0  | 6   | 10  | 7   | 181     | 0      | 12,146    | 49,903    |
| Piatt . . . . .      | 1     | 0     | 0  | 0   | 0   | 1   | 0       | 0      | 0         | 2,031     |
| Pike . . . . .       | 25    | 0     | 10 | 3   | 3   | 9   | 0       | 4.015  | 5,693     | 14,449    |
| Pope . . . . .       | 3     | 0     | 0  | 0   | 0   | 3   | 0       | 0      | 0         | 4,533     |
| Randolph . . . . .   | 6     | 1     | 0  | 2   | 1   | 2   | 14      | 0      | 1,637     | 11,998    |
| Richland . . . . .   | 41    | 21    | 0  | 13  | 7   | 0   | 659     | 0      | 62,298    | 127,605   |
| St. Clair . . . . .  | 16    | 1     | 4  | 3   | 3   | 5   | 3       | 11.060 | 1,852     | 19,711    |
| Saline . . . . .     | 75    | 27    | 0  | 21  | 24  | 3   | 4,412   | 0      | 80,703    | 226,194   |
| Sangamon . . . . .   | 26    | 1     | 0  | 6   | 4   | 15  | 58      | 0      | 1,770     | 45,117    |
| Schuyler . . . . .   | 3     | 0     | 0  | 0   | 0   | 3   | 0       | 0      | 0         | 2,402     |
| Shelby . . . . .     | 26    | 5     | 0  | 3   | 5   | 13  | 146     | 0      | 9,702     | 55,128    |
| Tazewell . . . . .   | 1     | 0     | 0  | 0   | 0   | 1   | 0       | 0      | 0         | 1,080     |
| Union . . . . .      | 2     | 0     | 0  | 0   | 0   | 2   | 0       | 0      | 0         | 2,574     |
| Wabash . . . . .     | 109   | 40    | 0  | 59  | 10  | 0   | 3,895   | 0      | 99,695    | 270,059   |
| Washington . . . . . | 85    | 30    | 0  | 20  | 26  | 9   | 909     | 0      | 46,422    | 147,454   |
| Wayne . . . . .      | 174   | 90    | 0  | 59  | 25  | 0   | 9,031   | 0      | 287,276   | 568,162   |
| White . . . . .      | 187   | 81    | 0  | 80  | 25  | 1   | 9,579   | 0      | 239,451   | 387,244   |
| Williamson . . . . . | 44    | 10    | 0  | 9   | 8   | 17  | 1,040   | 0      | 26,451    | 131,276   |
| Total . . . . .      | 2,585 | 1,045 | 23 | 793 | 397 | 327 | 109,698 | 19.380 | 2,394,117 | 5,817,721 |

<sup>a</sup> Does not include input wells, salt-water disposal wells, or old wells worked over.

<sup>b</sup> Wells drilled between one-half and two miles from production.

<sup>c</sup> Wells drilled more than two miles from production.

45.5 in 1956, to 41 percent in 1957. The percentage of total wildcat completions shows an opposite trend, increasing from 22 percent in 1955 to 28 percent in 1956, to 30.6 percent in 1957.

#### POOL DEVELOPMENT

Wells were drilled for oil or gas in 57 counties; 17 of these counties had only wildcat drilling, 40 had pool development drilling (table 2).

There was no great concentration of drilling. In most years several counties have 200 or 300 wells completed. In 1957 White County ranked first with 187 completions, followed by Wayne, Hamilton, Crawford, Lawrence, Douglas, Christian, Wabash, and Clay counties. About half of the drilling for 1957 was done in these nine counties, each of which had at least 100 completions. Coles County, which ranked first in 1956 with 266 completions, dropped to 19th place in 1957 with only 60 completions.

From 1942 until 1955 drilling was mostly confined to the southeastern part of the state. The only important exception was in 1946 when the Mattoon pool was being developed in Coles County. In 1955 and 1956 drilling moved to the northern margin of the producing area as the Decatur-Mt. Auburn and Cooks Mills areas were being developed. In 1957 Chesterville East, apparently the best new pool of the year, was discovered. By early fall the pools along the northern margin seemed to be almost completely drilled up. Extensive wildcatting failed to open up any new prospects, and by the end of the year most drilling was again in the southern part of the basin.

Development wells were scattered more than usual. Only four pools had 50 or more new producing wells: Lawrence and Clay City Consolidated each had 85 new producers, Main Consolidated had 78, and Dale Consolidated had 62.

Depths of producing wells drilled in 1957 ranged from about 350 to 4000 feet. Average depth of all wells drilled was about 2,200 feet.

In fields discovered since January 1, 1937, there were 22,656 wells producing oil or gas at the end of 1957; in older fields the number is estimated at 8,967. This figure is uncertain because many wells have been abandoned without being plugged or have been converted into water wells or input wells for secondary recovery. The total number of oil and gas wells in the state at the end of 1957 was about 31,623.

#### EXPLORATORY DRILLING

Wildcat wells were drilled in all of the 57 counties where drilling was done in 1957. New pools were discovered in 12 counties: four in Williamson County, two in Perry, and one in each of ten other counties. Williamson County had had no previous commercial production. One producing well (Marion pool) was completed several years ago but produced a total of only a few hundred barrels of oil. All four of the new Williamson County oil fields are in the extreme northern part of the county within five miles of Franklin or Saline counties. The largest pool, Corinth, had seven wells producing at the end of the year.

Of the 2,585 wells drilled in 1957, 788 were wildcats. These included 338 drilled more than two miles from production, 11 of which discovered new pools, about 3.3 percent successful (table 3). The 450 wildcats drilled between half a mile and two miles from production discovered five new pools and 48 extensions to pools, making them 11.8 percent successful. Three more extensions were discovered by working over wells previously completed as dry holes.

TABLE 3.—WILDCAT WELLS DRILLED IN 1957

| Category                  | Total | Producers | Percentage successful |
|---------------------------|-------|-----------|-----------------------|
| Wildcat Near <sup>a</sup> | 450   | 53        | 11.8                  |
| Wildcat Far <sup>b</sup>  | 338   | 11        | 3.3                   |
| Total                     | 788   | 64*       | 8.2                   |

<sup>a</sup> From ½ to 2 miles from production.

<sup>b</sup> More than 2 miles from production.

\* Three of the extension wells listed in table 5 were originally completed as dry holes and later worked over.

TABLE 4.—DISCOVERY WELLS OF NEW POOLS IN 1957

| Line no. | Pool            | County     | Company and farm                           | Location | Total depth (ft.) | Producing formation                | Depth to top (ft.)   | Initial production <sup>a</sup> (bbls.) | Date of completion | No. wells producing in pool 12/31/57 |
|----------|-----------------|------------|--|----------|-------------------|------------------------------------|----------------------|---|--------------------|--------------------------------------|
| 1        | Beverly (Gas)   | Adams      | G. & W. Oil Co. # 1 Binson                 | 10-3S-5W | 425               | Silurian                           | 415                  | 218,000 cu. ft.                         | 2-28               | 2 <sup>b</sup>                       |
| 2        | Chesterville E. | Douglas    | Pierce & Zuhome # 2 S. L. Munson           | 6-14N-8E | 1746              | Rosiclare                          | 1723                 | 787                                     | 7-23               | 40                                   |
| 3        | Clifford        | Williamson | Rehn-Calvert # 2 Rehn Old Ben Coal Co. "B" | 11-8S-1E | 2625; PB 2561     | Aux Vases<br>Rosiclare<br>McClosky | 2373<br>2520<br>2538 | 20; 18                                  | 1-22               | 1                                    |
| 4        | Corinth         | Williamson | R. Bartmes # 1 H. H. Roberts               | 21-8S-4E | 3018; PB 2905     | Aux Vases                          | 2886                 | 50; 1                                   | 6-25               | 7                                    |
| 5        | Corinth E.      | Williamson | W. W. Dayton # 1 R. Mann                   | 23-8S-4E | 3113; PB 3046     | McClosky                           | 3034                 | 120                                     | 4-30               | 1                                    |
| 6        | Corinth N.      | Williamson | Phillips Pet. # 1 Madison Coal Co. "A"     |          |                   |                                    |                      |   |                    |                                      |
| 7        | Deering City    | Franklin   | P. Mosebach # 2 Peabody-Mosebach           | 6-8S-4E  | 3180; PB 2949     | Aux Vases                          | 2933                 | 20; 27                                  | 2-19               | 1                                    |
| 8        | Exchange W.     | Marion     | R. Fletcher # 1 T. Sawyer                  | 9-7S-3E  | 2875              | Aux Vases                          | 2823                 | 135; 30                                 | 9-10               | 2                                    |
| 9        | Gila            | Jasper     | Miscner Drlg. Co. # 1 Parker               | 3-1N-3E  | 2779; PB 2680     | McClosky                           | 2664                 | 51                                      | 7-23               | 2                                    |
| 10       | Grayson         | Saline     | Mt. Carmel Drlg. Co. # 1 Bartok            | 32-8N-9E | 2918; PB 2800     | McClosky                           | 2849                 | 14                                      | 11-19              | 1                                    |
|          |                 |            |  | 34-8S-7E | 3024; PB 2925     | Cypress                            | 2512                 | 70                                      | 2-12               | 2                                    |
|          |                 |            |  |          |                   | McClosky                           | 2918                 |   |                    |                                      |
| 11       | New Douglas S.  | Bond       | Nat'l Associated Pet. # 1-A F. J. Zeller   | 35-6N-5W | 649               | Pennsylvanian                      | 642                  | 20                                      | 11-12              | 1                                    |
| 12       | New Memphis E.  | Washington | C. E. Brehm # 1 M. Gariich                 | 6-1S-4W  | 2280; PB 2200     | Silurian                           | 2172                 | 45                                      | 11-5               | 1                                    |
| 13       | Roby W.         | Sangamon   | V.S. & S. Drlg. Co. # 1 Spicer             | 6-15N-3W | 1782              | Silurian                           | 1656                 | 58                                      | 9-17               | 1                                    |
| 14       | Tamaroa S.      | Perry      | C. Bassett # 1 J. H. Bagwell               | 28-4S-1W | 1184; PB 1160     | Cypress                            | 1152                 | 28; 100                                 | 1-29               | 1                                    |
| 15       | Turkey Bend     | Perry      | E. A. Obering # 1 Kaul                     | 10-4S-2W | 4044; PB 3975     | Trenton                            | 3937                 | 25; 26                                  | 2-12               | 7                                    |
| 16       | Watson          | Effingham  | Slagter Prod. # 1 S. Wenthe                | 24-7N-5E | 2647; PB 2429     | Rosiclare                          | 2414                 | 60; 60                                  | 12-10              | 1                                    |

<sup>a</sup> Oil and water.  
<sup>b</sup> Shut in.

TABLE 5.—DISCOVERY WELLS OF EXTENSIONS TO POOLS, 1957  
C = Consolidated

| Line no. | Pool             | County     | Company and farm                           | Location  | Total depth (ft.) | Producing formation | Depth to top (ft.) | Initial production <sup>a</sup> (bbls.) | Date of completion |
|----------|------------------|------------|--|-----------|-------------------|---------------------|--------------------|---|--------------------|
| 1        | Aden C.          | Wayne      | Whaley Oil Co. # 1 Gallagher-Green         | 22-2S-7E  | 3388; PB 3279     | Aux Vases           | 3236               | 214                                     | 9-17               |
| 2        | Ashley           | Washington | Louden Pipe Line # 1 Denbeaux              | 31-2S-1W  | 1459              | Bethel              | 1463               | 6; 30                                   | 12-3               |
| 3        | Barnhill         | Wayne      | Texas # 1 L. Johnson Unit                  | 16-3S-8E  | 3592; PB 3517     | McClosky            | 3470               | 35; 38                                  | 1-22               |
| 4        | Blackland        | Christian  | Reeter & Hirstein # 1 G. Bettlell          | 1-15N-1W  | 1960; PB 1940     | Silurian            | 1922               | 6; 30                                   | 12-3               |
| 5        | Burnt Prairie S. | White      | Skiles Oil # 1 T. Miller, et al.           | 18-4S-9E  | 3543; PB 3500     | McClosky            | 3468               | 49                                      | 8-13               |
| 6        | Chesterville E.  | Douglas    | Emsminger & Parrish # 1 Ramsey             | 5-14N-8E  | 1736              | Rosiclare           | 1719               | 20                                      | 9-17               |
| 7        | Clay City C.     | Jasper     | J. W. Rudy # 1 A. M. Kessler               | 11-6N-10E | 2719              | McClosky            | 2699               | 75                                      | 11-12              |
| 8        | Clay City C.     | Jasper     | M. L. Van Fossan # 1 Dale Newlin           | 25-6N-9E  | 2990              | McClosky            | 2985               | 98                                      | 4-23               |
| 9        | Cooks Mills C.   | Coles      | Kenneth A. James # 2 Moore                 | 35-14N-7E | 1838; PB 1810     | Rosiclare           | 1796               | 46; 12                                  | 10-8               |
| 10       | Dale C.          | Hamilton   | Keystone Oil # 1 Burnett                   | 1-7S-5E   | 3239; PB 3200     | Aux Vases           | 3182               | 250                                     | 6-18               |
| 11       | Dale C.          | Hamilton   | C. E. Brehm # 1 Perry                      | 20-6S-5E  | 3278              | Aux Vases           | 3244               | 85                                      | 9-10               |
| 12       | Dale C.          | Hamilton   | C. E. Brehm # 1 M. C. Moore                | 35-6S-5E  | 3235; PB 3225     | Aux Vases           | 3200               | 400                                     | 4-23               |
| 13       | Dale C.          | Saline     | C. E. Brehm # 1 Harris Comm.               | 29-7S-5E  | 3161              | Aux Vases           | 3134               | 100                                     | 9-24               |
| 14       | Dale C.          | Franklin   | C. E. Brehm # 1 Westbrook "O"              | 1-7S-4E   | 3210; PB 3200     | Aux Vases           | 3181               | 50                                      | 1-22               |
| 15       | Dundas E.        | Richland   | Irving Nagel # 1 E. Phillips               | 35-5N-10E | 2953              | Rosiclare           | 2921               | 33                                      | 4-16               |
| 16       | Eberle           | Effingham  | P. Fulk # 1 A. M. Woody                    | 14-6N-6E  | 2809; PB 2756     | Rosiclare           | 2711               | 113                                     | 5-28               |
| 17       | Eldorado C.      | Saline     | Breuer & Curran # 1 R. W. Bounland         | 9-8S-7E   | 2938              | Aux Vases           | 2927               | 56                                      | 7-30               |
| 18       | Ellery C.        | Wayne      | E. Savage # 1 M. C. Johnson                | 1-2S-9E   | 3408; PB 3342     | Ohara               | 3320               | 10; 45                                  | 7-16               |
| 19       | Fairman          | Marion     | T. M. Conroy # 1 O. Hill Comm.             | 8-3N-1E   | 1482              | Bethel              | 1475               | 24                                      | 9-17               |
| 20       | Gards Point C.   | Wabash     | Dee-Watson Drig. Co. # 1 S. Seibert        | 14-1N-14W | 2836              | Ohara               | 2831               | 148                                     | 8-6                |
| 21       | Goldengate N. C. | Wayne      | E. T. Robinson # 1 Allison                 | 4-2S-9E   | 3436; PB 3370     | McClosky            | 3358               | 12; 16                                  | 4-9                |
| 22       | Goldengate N. C. | Wayne      | T. G. Jenkins, et al. # 1 Hoffee           | 12-2S-8E  | 3456; PB 3421     | McClosky            | 3413               | 20                                      | 4-16               |
| 23       | Greenville       | Bond       | F. L. Strickland # 1 A. V. Hentz, et al.   | 15-5N-3W  | 3184; PB 2260     | Devonian            | 2241               | 30                                      | 10-8               |
| 24       | Half Moon        | Wayne      | A. C. Davis # 1 J. E. Smith                | 35-1S-9E  | 3386; P 3 3320    | Ohara               | 3294               | 195                                     | 2-5                |
| 25       | Harco            | Saline     | Fitch Bros. # 1 E. Abney                   | 20-8S-5E  | 3120; PB 2957     | Aux Vases           | 2929               | 3½; 20                                  | 9-10               |
| 26       | Harristown       | Macon      | D. Carroll # 1 Schwiek-Aberson-Smith Comm. | 23-16N-1E | 2053              | Silurian            | 2034               | 17; 2                                   | 11-19              |
| 27       | Huey S.          | Clinton    | Nat'l Assoc. Pet. # 1 H. V. Schlaflay      | 36-2N-3W  | 2647              | Devonian-Silurian   | 2592               | 8                                       | 10-1               |
| 28       | Ina              | Jefferson  | Kewanee Oil # 1 Jeff                       | 23-4S-2E  | 3502; PB 2683     | Renault             | 2644               | 90                                      | 11-26              |
| 29       | Ina              | Jefferson  | Nash Redwine # 1 Jefferson Oil & Gas       | 26-4S-2E  | 3290; PB 3060     | St. Louis           | 3043               | 120; 4                                  | 2-19               |
| 30       | Inman E. C.      | Gallatin   | G. Engle # 1 Wood-Wisehart, et al.         | 21-7S-10E | 2980              | St. Louis           | 2960               | 75; 1                                   | 9-24               |

|    |                           |           |  |           |               |               |      |                   |       |
|----|---------------------------|-----------|--|-----------|---------------|---------------|------|-------------------|-------|
| 31 | Inman W. C. . . . .       | Gallatin  | V. R. Gallagher #1 Bradley Comm.         | 17-8S-9E  | 2730; PB 1765 | Biehl         | 1752 | 20                | 4-30  |
| 32 | Iuka. . . . .             | Marion    | Texas #1 H. L. Featherly Unit            | 15-2N-4E  | 2800; PB 2720 | McClosky      | 2685 | 84                | 1-15  |
| 33 | Johnsonville W. . . . .   | Wayne     | T. R. Lindsay #1 E. Legg                 | 2-1S-5E   | 3099          | McClosky      | 3080 | 84                | 10-1  |
| 34 | Main C. . . . .           | Crawford  | F. S. Stephenson, Jr., #1 D. Crebs       | 22-7N-12W | 1045          | Pennsylvanian | 1008 | 1,000,000 cu. ft. | 9-17  |
| 35 | Maunie N. C. . . . .      | White     | C. C. White #1 Phelps, Rice, Rogers Unit | 30-5S-14W | 3111; PB 3070 | Aux Vases     | 2969 | 432               | 1-15  |
| 36 | Mt. Auburn C. . . . .     | Christian | Henson Drlg. #1 Housley                  | 30-15N-1W | 1986          | Silurian      | 1914 | 11; 5             | 12-10 |
| 37 | Omaha E. . . . .          | Gallatin  | R. S. Thompson #4 Davis                  | 1-8S-8E   | 2980; PB 2540 | Cypress       | 2530 | 96; 35            | 11-26 |
| 38 | Oskaloosa . . . . .       | Clay      | Breuer & Curran #1 L. Spencer            | 26-4N-5E  | 2763          | McClosky      | 2755 | 10; 14            | 11-26 |
| 39 | Raleigh . . . . .         | Saline    | W. Duncan #1 Roy Jones                   | 10-8S-6E  | 3110; PB 3040 | Rosiclare     | 3023 | 113; 4            | 2-5   |
| 40 | Raleigh S. . . . .        | Saline    | R-K Petro. #1 McConnell                  | 29-8S-6E  | 3030; PB 2872 | Aux Vases     | 2848 | 76; 25            | 11-12 |
| 41 | Reservoir . . . . .       | Jefferson | Cullum & Lawhead #1 Wilson               | 30-1S-3E  | 2628; PB 2525 | McClosky      | 2506 | 20; 60            | 4-16  |
| 42 | Roby . . . . .            | Sangamon  | J. C. Hajuk #1 J. W. Taft                | 10-15N-3W | 1761; PB 1722 | Silurian      | 1689 | 13; 4             | 7-30  |
| 43 | Sailor Springs Central    | Clay      | Texas #1 L. Noll                         | 30-4N-8E  | 3044; PB 3020 | McClosky      | 3008 | 149               | 7-9   |
| 44 | Sailor Springs C. . . . . | Clay      | Robison Oil #1 L. Benskin "A"            | 6-3N-7E   | 3135; PB 3024 | Ohara         | 2988 | 45; 10            | 7-2   |
| 45 | Salem C. . . . .          | Marion    | Higgins & Whittinghill #1 M. Bruce       | 34-1N-2E  | 2201          | Rosiclare     | 2177 | 110; 20           | 10-1  |
| 46 | Sicily . . . . .          | Christian | M. Fesser #1 Clark                       | 14-13N-4W | 1826          | Silurian      | 1811 | 160               | 2-12  |
| 47 | Sorento C. . . . .        | Bond      | F. L. Strickland #1 C. S. Harmon         | 29-6N-4W  | 1895; PB 1870 | Lingle        | 1854 | 21; 10            | 4-30  |
| 48 | Thompsonville E. . . . .  | Franklin  | R-K Petro. Co. #1 Bundy, et al. Comm.    | 2-7S-4E   | 3141          | Aux Vases     | 3135 | 40                | 12-23 |
| 49 | Trumbull . . . . .        | White     | Calvert Drlg. #2 Mitchell Consol.        | 12-5S-8E  | 3360          | McClosky      | 3250 | 172; 10           | 8-6   |
| 50 | Trumbull . . . . .        | White     | H. Sackett-Ashland #1 Ward               | 19-5S-9E  | 3333; PB 3150 | Aux Vases     | 3142 | 28; 43            | 7-23  |
| 51 | Whittington W. . . . .    | Franklin  | Kewanee Oil #2 Plains                    | 2-5S-2E   | 2942; PB 2720 | Renault       | 2689 | 250               | 1-8   |

<sup>a</sup> Oil and water.



TABLE 6.—DISCOVERY WELLS OF NEW PAYS IN POOLS, 1957  
C = Consolidated

| Line no. | Pool                    | County     | Company and farm                          | Location  | Total depth (ft.) | Producing formation | Depth to top (ft.) | Initial production <sup>a</sup> (bbls.) | Date of completion |
|----------|-------------------------|------------|---|-----------|-------------------|---------------------|--------------------|---|--------------------|
| 1        | Ab Lake . . . . .       | Gallatin   | W. Duncan #1 L. E. Osburn                 | 29-8S-10E | 2020              | Waltersburg         | 1994               | 4½; 26                                  | 10-8               |
| 2        | Ab Lake . . . . .       | Gallatin   | P. S. Knight #1 Geo. Golden               | 32-8S-10E | 2783; PB 894      | Pennsylvanian       | 805                | 25                                      | 5-14               |
| 3        | Christopher C. . . . .  | Franklin   | Nat'l Assoc. Pet. #1 Lindsay-Moschino "H" | 14-6S-1E  | 4538              | St. Louis           | 2998               | 132; 169 <sup>b</sup>                   | 7-23               |
| 4        | Clarksburg . . . . .    | Shelby     | Partlow & Cochoeur #1 Strohl              | 8-10N-4E  | 3206; PB 1791     | Aux Vases           | 1772               | 25; 28                                  | 10-1               |
| 5        | Corinth . . . . .       | Williamson | Gulf Oil #1 Henry Mitchell                | 21-8S-4E  | 3150; PB 3041     | Rosiclare           | 2988               | 186; 30 <sup>b</sup>                    | 8-27               |
| 6        | Fairman . . . . .       | Marion     | Nat'l Assoc. Pet. #1 A. Ververs           | 18-3N-1E  | 4052; PB 4012     | Trenton             | 3946               | 82                                      | 5-14               |
| 7        | Greenville . . . . .    | Bond       | F. L. Strickland #1 A. V. Hentz, et al.   | 15-5N-3W  | 3184; PB 2260     | Devonian            | 2241               | 30                                      | 10-8               |
| 8        | Hill E. . . . .         | Effingham  | Reiss & Coslet #3 Horath                  | 12-6N-6E  | 2802; PB 2665     | Aux Vases           | 2651               | 10; 70                                  | 10-8               |
| 9        | Ina . . . . .           | Jefferson  | F. L. Strickland #2 Gilbert               | 25-4S-2E  | 3260; PB 2798     | Rosiclare           | 2776               | 180                                     | 11-19              |
| 10       | Ina . . . . .           | Jefferson  | F. L. Strickland #1 Gilbert               | 25-4S-2E  | 3260; PB 3230     | Salem               | 3174               | 140                                     | 1-15               |
| 11       | Inman E. . . . .        | Gallatin   | Geo. S. Engle #1 Wood-Wisheart, et al.    | 21-7S-10E | 2980              | St. Louis           | 2960               | 75; 1                                   | 9-24               |
| 12       | Odin . . . . .          | Marion     | Wausau Pet. #1-D R. Young                 | 7-2N-2E   | 3525; PB 2100     | McClosky            | 2084               | 75                                      | 12-17              |
| 13       | Omaha E. . . . .        | Gallatin   | R. S. Thompson #1 Davis                   | 1-8S-8E   | 2980; PB 2540     | Cypress             | 2530               | 96; 35                                  | 11-26              |
| 14       | Oskaloosa . . . . .     | Clay       | Breuer & Curran #1 L. Spencer             | 26-4N-5E  | 2763              | McClosky            | 2755               | 10; 14                                  | 11-26              |
| 15       | Phillipstown S. . . . . | White      | W. W. Toler #1 John Brown Comm.           | 11-5S-10E | 3104; PB 3070     | McClosky            | 3066               | 23; 10                                  | 10-8               |
| 16       | Raccoon Lake . . . . .  | Marion     | Texas #2 C. Langenfeld                    | 3-1N-1E   | 1927              | Bethel              | 1715               | 64; 56 <sup>c</sup>                     | 8-27               |

<sup>a</sup> Oil and water.

<sup>b</sup> Producing from 2 pays.

<sup>c</sup> Producing from 3 pays.

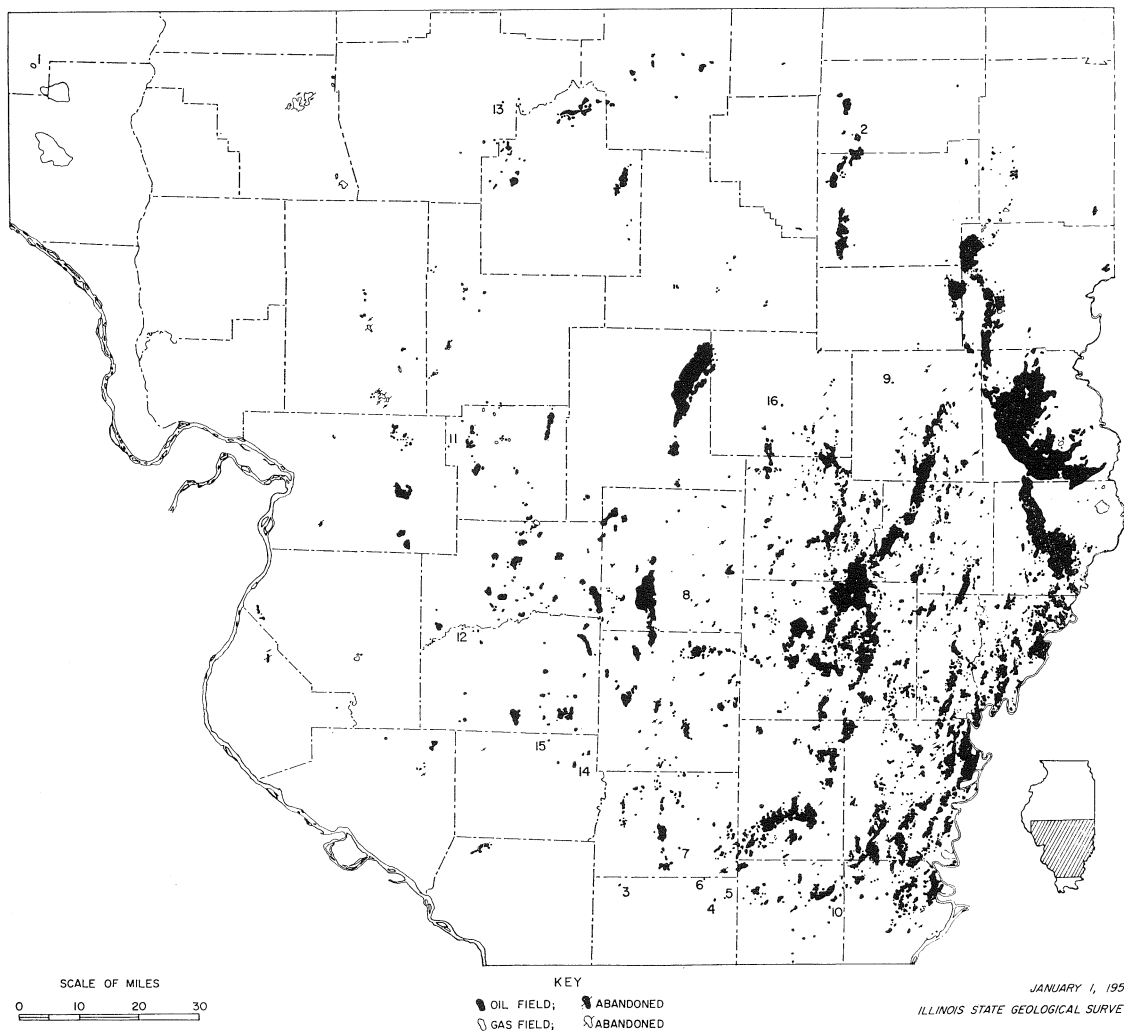


Fig. 2. — Oil pools discovered in Illinois in 1957.

- |                      |                  |                       |
|----------------------|------------------|-----------------------|
| 1. Beverly Gas       | 6. Corinth North | 11. New Douglas South |
| 2. Chesterville East | 7. Deering City  | 12. New Memphis       |
| 3. Clifford          | 8. Exchange West | 13. Roby West         |
| 4. Corinth           | 9. Gila          | 14. Tamaroa South     |
| 5. Corinth East      | 10. Grayson      | 15. Turkey Bend       |
|                      |                  | 16. Watson            |

The 15 new oil pools and one new gas pool are listed in table 4 and shown in figure 2. The 51 new extensions to pools are listed in table 5, and the 16 new pays in table 6. At the end of the year the 15 new oil pools had 69 wells, and the one new gas pool, Beverly pool in Adams County, had two capped gas wells. Forty of the 69 new oil wells were in the Chesterville East

pool in Douglas County. Corinth in Williamson County and Tamaroa South in Perry County each had seven wells, and the remaining 12 pools had a total of 15 wells.

The distribution of the new pools is shown in figure 2. All but one, Exchange West (No. 8) in Marion County, are near the edges of the present oil area.

TABLE 7.—SELECTED LIST OF UNSUCCESSFUL DEEP TESTS, 1957

| Line no. | Pool           | County    | Company and farm                    | Location   | Total depth (ft.) | Deepest formation | Depth to top (ft.) | Date of completion |
|----------|----------------|-----------|-------------------------------------|------------|-------------------|-------------------|--------------------|--------------------|
| 1        | Mt. Auburn C.  | Christian | H. F. Robison #1 F. Long            | 24-15N-2W  | 2537              | Trenton           | 2430               | 9-24 <sup>a</sup>  |
| 2        | Martinsville   | Clark     | Athene Devel. Corp. #1 C. A. Pence  | 31-10N-13W | 3428              | St. Peter         | 3422               | 4-18               |
| 3        | Bartleso E.    | Clinton   | General American Oil #1 Simonton    | 26-1N-3W   | 3775              | Decorah           | 3760               | 8-13 <sup>b</sup>  |
| 4        | Beckemeyer     | Clinton   | Schiermann & Imming #1 Beckemeyer   | 27-2N-3W   | 2572              | Devonian          | 2521               | 2-12               |
| 5        | Posey          | Clinton   | L. Kapp et al., #2 Lampen           | 16-1N-2W   | 2782              | Devonian          | 2672               | 1-20               |
| 6        |                | Coles     | Magnolia #1 M. T. Rodda             | 4-11N-9E   | 5389              | Knox              | 5370               | 11-5               |
| 7        |                | LaSalle   | R. W. Lawinger #1 Anna Miller       | 1-36N-4E   | 3659              | Granite           | 3469               | 8-6                |
| 8        | Livingston S.  | Madison   | Jet Oil #1 Pirox-Hodapp Comm.       | 4-5N-6W    | 1798              | Devonian          | 1720               | 12-3               |
| 9        |                | Mercer    | H. L. Kelly #1 Fullerton            | 19-13N-4W  | 3410              | Granite wash      | 3252               | 12-17              |
| 10       | Fishhook       | Pike      | Pike County Gas Assoc. #2 Conkright | 4-4S-4W    | 1212              | Shakopee          | 1208               | 11-5               |
| 11       | Roby W.        | Sangamon  | A. Valter #1 Dierks, et al.         | 5-15N-3W   | 2259              | Trenton           | 2121               | 10-22              |
| 12       | Stewardson     | Shelby    | Doran Oil Prop. #2 G. Chaffee       | 27-10N-5E  | 3509              | Devonian          | 3332               | 9-17 <sup>a</sup>  |
| 13       | New Harmony C. | Wabash    | W. J. King #1 M. Keen               | 9-2S-13W   | 4567              | Devonian          | 4436               | 2-19               |

<sup>a</sup> Plugged back to production.<sup>b</sup> Abandoned producer drilled deeper.<sup>c</sup> Consolidated.

Discoveries of new pools or new pays in the Pennsylvanian were insignificant in 1957. One of the new one-well pools, New Douglas South in Bond County, was completed in a Pennsylvanian sandstone, and a Pennsylvanian pay was discovered in the Ab Lake pool in Gallatin County.

Eight of the new pools are in Mississippian sandstones and limestones, which range in age from Cypress to McClosky. This group includes the three best new pools: Chesterville East, Corinth, and Tamaroa South. Thirteen of the 16 new pays are also in the Mississippian; five of them in Chester sandstones and eight in Ste. Genevieve, St. Louis, and Salem Limestones.

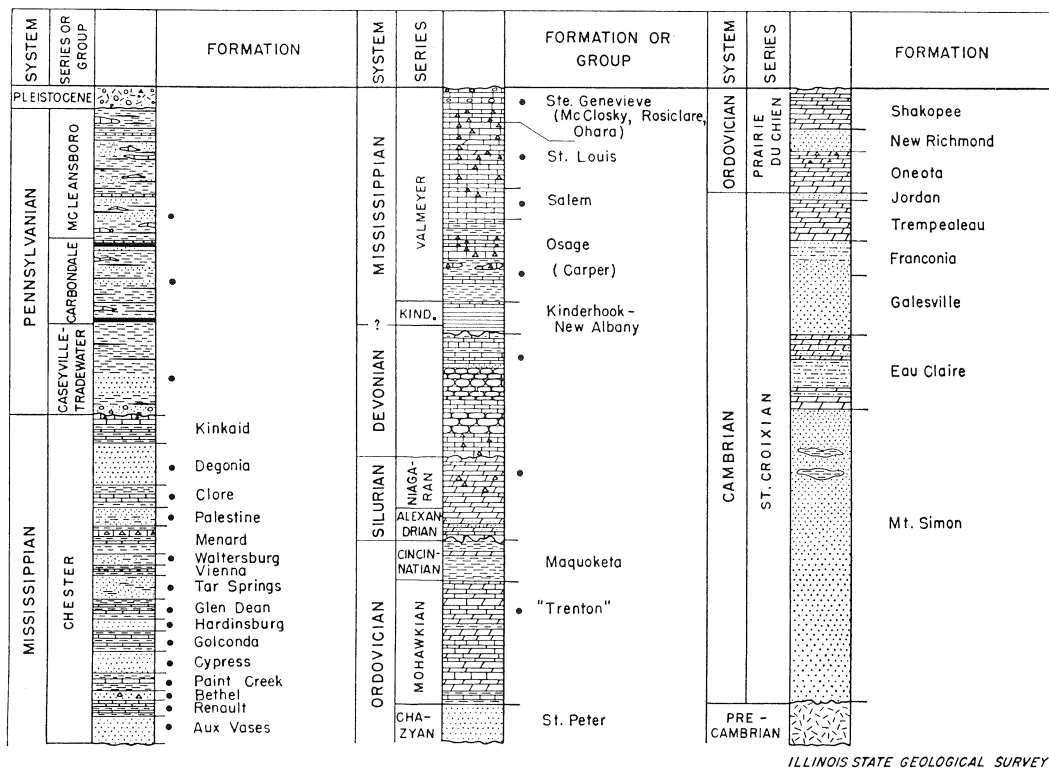
Since 1950 Silurian and Devonian pools have been discovered more frequently than in the previous decade, but these newer pools are not comparable to Centralia, Salem, and Marine in either number of Devonian wells or volume of oil produced. In 1957 Silurian and Devonian discoveries were comparatively insignificant. Three of the new pools (the two-well Beverly gas pool and the one-well Roby West and New Memphis East pools) are completed in Silurian-Devonian strata. In the abandoned Greenville Gas pool a Devonian oil well was drilled and then abandoned at the end of the year.

The only new Trenton pool in 1957 was Turkey Bend in Perry County, another of the one-well pools. A new Trenton pay in the Fairman pool in Marion and Clinton counties is probably the most important non-Mississippian discovery for 1957.

In 1956 a new Trenton pay was discovered at the southwest end of the Patoka pool in Marion County. The Fairman Trenton is about two miles from the Patoka Trenton and is within 10 miles of Salem and Centralia, the best Trenton pools in the state.

A generalized geologic column for the southern Illinois oil region, indicating principal producing strata, is shown in figure 3.

A selected list of unsuccessful deep tests in pools and three stratigraphically deep wildcats is given in table 7.



ILLINOIS STATE GEOLOGICAL SURVEY

Fig. 3. — Generalized geologic column for the southern Illinois oil region. Black dots identify oil-producing strata.

Geophysical exploration, which had almost ceased in 1955 and 1956, increased in 1957 (table 8). The seismograph method

was most commonly used, but a little gravity meter work also was done.

PRODUCTIVE ACREAGE

TABLE 8.—NUMBER OF GEOPHYSICAL AND CORE DRILLING CREWS ACTIVE IN ILLINOIS DURING 1957 BY MONTHS

| Month         | Seismo-graph | Gravity meter | Magne-tometer | Core drill |
|---------------|--------------|---------------|---------------|------------|
| Jan. . . . .  | 4            | 0             | 0             | 6          |
| Feb. . . . .  | 4            | 0             | 0             | 8          |
| Mar. . . . .  | 2            | 0             | 0             | 7          |
| Apr. . . . .  | 0            | 0             | 0             | 8          |
| May. . . . .  | 0            | 0             | 0             | 9          |
| June. . . . . | 0            | 4             | 0             | 11         |
| July. . . . . | 1            | 0             | 0             | 3          |
| Aug. . . . .  | 6            | 0             | 0             | 2          |
| Sept. . . . . | 10           | 0             | 0             | 4          |
| Oct. . . . .  | 12           | 0             | 0             | 9          |
| Nov. . . . .  | 8            | 2             | 0             | 10         |
| Dec. . . . .  | 4            | 0             | 0             | 0          |

The area of proved production in Illinois, including abandoned pools, at the end of 1957 was 550,305 surface acres for oil and 30,425 for gas. Most of the gas acreage should be considered as reserve rather than productive acreage because most of the gas wells were shut-in immediately and no gas was marketed from them. Of the total acreage, 385,520 oil acres and 18,070 gas acres were in pools discovered since January 1, 1937. During 1957, about 10,990 oil acres were added: 1,250 in pools discovered before January 1, 1937, and 9,740 in pools discovered after that date, including the 1957 new pools. New gas wells, most of which were capped, added 1,630 acres in 1957.

ESTIMATED PETROLEUM RESERVES

The Illinois State Geological Survey estimates that on January 1, 1958, Illinois oil reserves that can be produced from wells now in existence, by methods now in use, total 667.3 million barrels. This is a decline of 34.3 million barrels from the estimate for January 1, 1957. The factors in this change are shown below:

|   | <i>Millions<br/>of bbls.</i> |
|---|------------------------------|
| Estimated reserves, Jan. 1, 1957. . . . . | 701.6                        |
| Withdrawal by 1957 production . . . . .   | <u>76.6</u>                  |
|   | 625.0                        |
| Added by new drilling in 1957 . . . . .   | <u>27.0</u>                  |
|   | 652.0                        |
| Added by upward revision . . . . .        | <u>15.3</u>                  |
| Estimated reserves, Jan. 1, 1958. . . . . | 667.3                        |

The 1,159 oil-producing wells, including 70 workover wells that had formerly been producing wells and 44 holes formerly completed as dry holes, completed during 1957 added an estimated oil reserve of 27.0 million barrels, an average of about 23,209 barrels per well. During 1956 new reserves added by new drilling amounted to 47.4 million barrels.

A comparison of the new reserves added in each major geological system during 1956 and 1957 is given below:

|  | 1956       | 1957       |
|--|------------|------------|
|  | (percent)  |            |
| Pennsylvanian System . . . . .                     | 2.0        | 4.0        |
| Mississippian System . . . . .                     | 81.3       | 84.3       |
| Devonian and Silurian Systems . . . . .            | 15.8       | 7.4        |
| Ordovician System ("Trenton" production) . . . . . | <u>0.9</u> | <u>4.3</u> |
|  | 100.0      | 100.0      |

The Aux Vases Sandstone, with 33.6 percent, is credited with the greatest amount of new reserves added for one pay zone. The Ste. Genevieve Formation was second, accounting for 28.1 percent; of this the Rosiclare Sandstone contributed 15.1 percent of the added reserves. The "Trenton" Limestone is credited with 4.3 percent of the new reserves, a large increase from the approximate 0.9 percent estimated for this pay during 1956. The Aux Vases and Ste. Genevieve Formations were also important

during 1956, contributing 30.1 percent and 31.6 percent, respectively, to the new reserves.

The reserves added by the 15 new oil pools discovered during 1957 are estimated at 2,745,000 barrels of oil. This figure is approximately half the reserve figure of 5,209,000 barrels estimated for the 17 new oil pools discovered during 1956. A comparison of the estimated new field reserves by pays for 1956 and 1957 is given below:

|                                 | 1956        | 1957        |
|---------------------------------|-------------|-------------|
|                                 | (percent)   |             |
| Pennsylvanian . . . . .         | less than 1 | less than 1 |
| Cypress . . . . .               | 1.0         | 3.7         |
| Aux Vases . . . . .             | 5.2         | 15.5        |
| Ste. Genevieve . . . . .        | 32.0        | 79.1        |
| Devonian and Silurian . . . . . | 60.8        | less than 1 |
| "Trenton". . . . .              | less than 1 | less than 1 |

Rosiclare Sandstone is responsible for 75.6 percent of the 79.1 percent estimated new pool reserves in the Ste. Genevieve Formation.

During 1957 six of the fifteen new discoveries were in the extreme southern portion of the Illinois oil-producing area. Four of these were in Williamson County, which formerly had only one producing well. The discovery well of the Clifford pool in Williamson County was credited with production from three pay zones, and the Grayson pool discovery well, in Saline County, was reported to be producing from two pay zones.

GAS AND GAS PRODUCTS

An estimated 26.8 billion cubic feet of gas was produced from Illinois wells during 1957, either as solution gas or in separate gas reservoirs in the oil areas.

Most of the 94,492,000 cubic feet of gas marketed in Carmi and Eldorado was obtained from dry gas wells within oil fields. As shown in the following chart, an additional 1,110,857,000 cubic feet of dry gas or casing-head gas, much of which was formerly flared, was delivered to gas pipe lines for distribution throughout the state.

About 5.3 billion cubic feet of solution gas from Illinois oil wells was processed during 1957 by the three principal operating companies, with the resultant produc-

tion of 1,214,100 barrels of natural gasoline and allied products. Approximately 158,000,000 cubic feet of dry residue gas was returned to the producing formations, the remainder being used as plant or lease fuel. The amount of gas flared at the plants was insignificant. These figures do not include natural gasoline or allied products produced at one plant in Illinois that processes gas from outside the state and returns the dry residue gas to the pipe line.

In addition to the 5.3 billion cubic feet of metered solution gas processed, a somewhat smaller amount of unmetered gas was used, largely for lease fuel. It is estimated that about 20 billion cubic feet was flared at the wells during the year.

Twenty-one new gas wells (not including two wells too small to be commercial) located in eight pools in six different counties were completed during 1957. Combined initial open-flow capacity for eighteen of these wells amounted to 18,920,500 cubic feet daily, with no initial gauge reported for the other three. Sandstones in the lower part of the Pennsylvanian System and in the Cypress Formation of Mississippian age, limestone in the Middle Devonian, and the Edgewood Dolomite of Lower Silurian age serve as the reservoir rocks. None of this gas has been marketed for use away from the producing area.

GAS PRODUCED IN ILLINOIS AND MARKETED IN 1957

| <i>Field, County</i>                    | <i>Market</i> | <i>Amount used<br/>(cu. ft.)</i> |
|---|---------------|----------------------------------|
| Eldorado Consolidated,<br>Saline        | Eldorado      | 50,939,000                       |
| Herald Consolidated, White-<br>Gallatin | Carmi         | 43,553,000                       |
| Eldorado Consolidated,<br>Saline        | Pipe lines    | 749,328,000                      |
| Harco, Saline                           | Pipe lines    | 361,529,000                      |
|   |               | 1,205,349,000                    |

UNDERGROUND GAS STORAGE

The storage of natural gas underground<sup>1</sup> to provide reserve supplies upon which to draw when demand exceeds the capacity of available pipe lines to deliver has been of increasing importance in the United States for more than ten years. At first only

the producing formations in abandoned oil or gas fields were used as storage reservoirs, but later the industry began to use water-bearing rock formations in large closed structures. An outstanding example is the Herscher dome, Kankakee County, Illinois<sup>2</sup>.

Injection of gas into the Galesville sandstone at the approximate depth of 1700 feet in the Herscher dome began April 1, 1953. It was believed that the Galesville would have a storage capacity for gas of 93 billion cubic feet. However, because of leaks from the reservoir which were discovered four months after injection began, the actual storage capacity was found to be 31 billion cubic feet, about half of which is usable.

All of the gas stored in the Herscher dome originates outside of Illinois and is brought in by two principal pipelines owned by (1) The Natural Gas Pipeline Company of America, and (2) The Texas Illinois Natural Gas Pipeline Company.

The gas storage at Herscher was successfully used in the winter season of 1957-1958 in supplying the extra demands of Chicago consumers during cold weather.

Exploratory drilling of a deeper formation in the Herscher dome, the Mt. Simon formation at the approximate depth of 2600 feet, was carried on during 1957, and about December 1, 1957, experimental injection of gas into the Mt. Simon was begun. It is estimated that the Mt. Simon reservoir may hold as much as 70 billion cubic feet, of which half would be usable.

Gas is also being stored in previous oil- or gas-producing formations in the Waterloo anticline in Monroe County near St. Louis, and is to be stored in the Cooks Mills area, Coles County.

Underground gas storage sites are being sought by gas companies in many parts of Illinois and it is likely that many more gas storage operations will be undertaken.

<sup>1</sup>Robert B. Bizal, More gas being stored underground: Oil and Gas Journal, Tulsa, Okla., May 12, 1958, pp. 84-88.

<sup>2</sup>Anonymous, Herscher Dome — Gas storage despite leak: Oil and Gas Journal, Tulsa, Okla., Aug. 18, 1958, pp. 114-116.

TABLE 9.—ILLINOIS OIL AND GAS POOLS\*  
 JANUARY 1, 1958  
 C = Consolidated

| Pool: County                     | Twp.—Range        | Pool: County                                  | Twp.—Range        |
|----------------------------------|-------------------|---|-------------------|
| Ab Lake: Gallatin                | 8S; 10E           | Bogota: Jasper                                | 6N; 9E            |
| Ab Lake W: Gallatin              | 8-9S; 9-10E       | Bogota N: Jasper                              | 6N; 9E            |
| Aden C: Wayne, Hamilton          | 2-3S; 7E          | Bogota S: Jasper                              | 5-6N; 9E          |
| Aden S: Hamilton                 | 3S; 7E            | Bone Gap C: Edwards                           | 1S; 10-11E, 14W   |
| Akin: Franklin                   | 6S; 4E            | Bone Gap E: Edwards                           | 1S; 14W           |
| Akin W: Franklin                 | 6S; 4E            | Bone Gap W: Edwards                           | 1S; 10E           |
| Albion Central: Edwards          | 2S; 10E           | Boulder: Clinton                              | 2-3N; 2W          |
| Albion C: Edwards, White         | 1-3S; 10-11E, 14W | Boulder E: Clinton                            | 3N; 1W            |
| Albion E: Edwards                | 2S; 14W           | Bourbon: Douglas                              | 15N; 7E           |
| Albion W: Edwards                | 3S; 10E           | Bourbon N: Douglas                            | 15N; 7E           |
| Allendale C: Wabash,<br>Lawrence | 1-2N; 11-13W      | Boyd: Jefferson                               | 1S; 1-2E          |
| Alma: Marion                     | 4N; 2E            | Broughton: Hamilton                           | 6S; 7E            |
| Amity: Richland                  | 4N; 14W           | Broughton S: Saline                           | 7S; 7E            |
| Amity S: Richland                | 4N; 14W           | Brown: Marion                                 | 1N; 1E            |
| Amity W: Richland                | 4N; 14W           | Browns: Edwards, Wabash                       | 1-2S; 14W         |
| Ashley: Washington               | 2S; 1W            | Browns E: Wabash                              | 1-2S; 14W         |
| Ashmore E: Coles                 | 13N; 14W          | Browns S: Edwards                             | 2S; 14W           |
| Assumption C: Christian          | 13-14N; 1E        | Bungay C: Hamilton                            | 4S; 7E            |
| Assumption S: Christian          | 12N; 1E           | Burnt Prairie S: White                        | 4S; 9E            |
| Ava-Campbell Hill: Jackson       | 7S; 4W            | Calhoun Central: Richland                     | 2N; 10E           |
| Ayers Gas: Bond                  | 6N; 3W            | Calhoun C: Richland,<br>Wayne                 | 2-3N; 9-10E       |
| Baldwin: Randolph                | 4S; 6W            | Calhoun E: Richland                           | 2N; 10-11E        |
| Barnhill: Wayne                  | 2-3S; 8E          | Calhoun N: Richland                           | 3N; 10E           |
| Bartelso: Clinton                | 1-2N; 3W          | Calhoun S: Wayne                              | 2N; 9E            |
| Bartelso E: Clinton              | 1N; 3W            | Carlinville: Macoupin                         | 9N; 7W            |
| Bartelso S: Clinton              | 1N; 3W            | Carlinville N: Macoupin                       | 10N; 7W           |
| Bartelso W: Clinton              | 1N; 3-4W          | Carlyle: Clinton                              | 2N; 3W            |
| Beaucoup: Washington             | 2S; 2W            | Carlyle N: Clinton                            | 3N; 3W            |
| Beaucoup S: Washington           | 2S; 2W            | Carlyle S: Clinton                            | 1N; 3W            |
| Beaver Creek: Bond,<br>Clinton   | 3-4N; 2-3W        | Carmi: White                                  | 5S; 9E            |
| Beaver Creek N: Bond             | 4N; 3W            | Carmi N: White                                | 5S; 9E            |
| Beaver Creek S: Clinton,<br>Bond | 3-4N; 2-3W        | Casey: Clark                                  | 10-11N; 14W       |
| Beckemeyer Gas: Clinton          | 2N; 3W            | Centerville: White                            | 4S; 9E            |
| Bellaire: Crawford, Jasper       | 8N; 14W           | Centerville E: White                          | 3-4S; 9-10E       |
| Belle Prairie: Hamilton          | 4S; 6-7E          | Centerville N: White                          | 3S; 10E           |
| Belle Rive: Jefferson            | 3S; 4E            | Centerville NE: White                         | 3S; 10E           |
| Bellmont: Wabash                 | 1S; 13-14W        | Centralia: Clinton, Marion                    | 1-2N; 1E, 1W      |
| Beman: Lawrence                  | 3N; 11W           | Centralia W: Clinton                          | 1N; 1W            |
| Beman E: Lawrence                | 3N; 10W           | Chesterville: Douglas                         | 15N; 7E           |
| Bennington S: Edwards            | 1N; 10E           | Chesterville E: Douglas                       | 14-15N; 7-8E      |
| Benton: Franklin                 | 6S; 2-3E          | Christopher C: Franklin                       | 6S; 1E            |
| Benton N: Franklin               | 5-6S; 2E          | Claremont: Richland                           | 3N; 14W           |
| Berryville C: Wabash,<br>Edwards | 1-2N; 14W         | Clarksburg: Shelby                            | 10N; 4E           |
| Bessie: Franklin                 | 6S; 3E            | Clay City C: Clay, Wayne,<br>Richland, Jasper | 1-7N, 1-2S; 6-10E |
| Beverly: Adams                   | 3S; 5W            | Clay City W: Clay                             | 2N; 7E            |
| Bible Grove N: Effingham         | 6N; 7E            | Clifford: Williamson                          | 8S; 1E            |
| Bible Grove S: Clay              | 5N; 7E            | Coil: Wayne                                   | 1S; 5E            |
| Blackland: Macon,<br>Christian   | 15N; 1E-1W        | Coil W: Jefferson                             | 1S; 4E            |
| Black River: White               | 4S; 13W           | Collinsville: Madison                         | 3N; 8W            |
| Blairsville W: Hamilton          | 4S; 7E            | Colmar-Plymouth: Han-<br>cock, McDonough      | 4N; 4-5W          |

\* Includes abandoned pools.

TABLE 9.—(Continued)

| Pool: County                                | Twp.—Range   | Pool: County                           | Twp.—Range  |
|---|--------------|--|-------------|
| Concord C: White . . .                      | 6S; 10E      | Exchange: Marion . . .                 | 1N; 3E      |
| Concord E C: White . . .                    | 6-7S; 10E    | Exchange E: Marion . . .               | 1N; 4E      |
| Cooks Mills C: Coles,<br>Douglas . . .      | 13-14N; 7-8E | Exchange N: Marion . . .               | 1N; 3-4E    |
| Cordes: Washington . . .                    | 3S; 3W       | Exchange W: Marion . . .               | 1N; 3E      |
| Corinth: Williamson . . .                   | 8S; 4E       | Fairman: Marion, Clinton . . .         | 3N; 1E, 1W  |
| Corinth E: Williamson . . .                 | 8S; 4E       | Fishhook: Pike, Adams . . .            | 3-4S; 4-5W  |
| Corinth S: Williamson . . .                 | 8S; 4E       | Fitzgerrell: Jefferson . . .           | 4S; 1E      |
| Cottage Grove: Saline . . .                 | 9S; 7E       | Flora S: Clay . . .                    | 2N; 6E      |
| Covington S: Wayne . . .                    | 2S; 6E       | Francis Mills: Saline . . .            | 7S; 7E      |
| Craig: Perry . . .                          | 4S; 4W       | Francis Mills S: Saline . . .          | 7S; 7E      |
| Cravat: Jefferson . . .                     | 1S; 1E       | Freeburg S: St. Clair . . .            | 1S; 7W      |
| Cravat W: Jefferson . . .                   | 1S; 1E       | Friendsville Central: Wabash . . .     | 1N; 13W     |
| Crossville: White . . .                     | 4S; 10E      | Friendsville N: Wabash . . .           | 1N; 12-13W  |
| Crossville W: White . . .                   | 4S; 10E      | Frogtown: Clinton . . .                | 2N; 3-4W    |
| Dahlgren: Hamilton . . .                    | 3S; 5E       | Frogtown N: Clinton . . .              | 2-3N; 3-4W  |
| Dale C: Hamilton, Saline,<br>Franklin . . . | 5-7S; 4-7E   | Gards Point C: Wabash . . .            | 1N; 14W     |
| Decatur: Macon . . .                        | 16N; 2E      | Gays: Moultrie . . .                   | 12N; 6E     |
| Decatur N: Macon . . .                      | 17N; 3E      | Germantown E: Clinton . . .            | 1-2N; 4W    |
| Deering City: Franklin . . .                | 7S; 3E       | Gila: Jasper . . .                     | 8N; 9E      |
| Divide: Jefferson . . .                     | 1S; 3-4E     | Gillespie-Wyen: Macoupin . . .         | 8N; 6W      |
| Divide E: Jefferson . . .                   | 1S; 4E       | Gillespie-Benld Gas:<br>Macoupin . . . | 8N; 6W      |
| Divide S: Jefferson . . .                   | 2S; 3E       | Glenarm: Sangamon . . .                | 14N; 5W     |
| Divide W: Jefferson . . .                   | 1S; 3E       | Goldengate C: Wayne,<br>White . . .    | 2-4S; 9E    |
| Dix S: Jefferson . . .                      | 1S; 2E       | Goldengate E: Wayne . . .              | 3S; 9E      |
| Dubois C: Washington . . .                  | 3S; 1-2W     | Goldengate N C: Wayne . . .            | 1-2S; 8-9E  |
| Dubois Central: Washing-<br>ton . . .       | 3S; 1W       | Grandview: Edgar . . .                 | 12-13N; 13W |
| Dudley: Edgar . . .                         | 13-14N; 13W  | Grayson: Saline . . .                  | 8S; 7E      |
| Dudley W Gas: Edgar . . .                   | 13N; 13W     | Greenville Gas: Bond . . .             | 5N; 3W      |
| Dudleyville E: Bond . . .                   | 4-5N; 2-3W   | Half Moon: Wayne . . .                 | 1S; 9E      |
| Dundas E: Richland, Jas-<br>per . . .       | 4-5N; 10E    | Harco: Saline . . .                    | 8S; 5E      |
| Dupo: St. Clair . . .                       | 1S, 1N; 10W  | Harco E: Saline . . .                  | 8S; 5E      |
| Eberle: Effingham . . .                     | 6N; 6E       | Harrisburg: Saline . . .               | 8S; 6E      |
| Edinburg: Christian . . .                   | 14N; 3W      | Harrisburg S: Saline . . .             | 9S; 6E      |
| Edinburg S: Christian . . .                 | 14N; 3W      | Harristown: Macon . . .                | 16N; 1E     |
| Edinburg W: Christian,<br>Sangamon . . .    | 14N; 3-4W    | Herald C: White, Gallatin . . .        | 6-8S; 9-10E |
| Elba: Gallatin . . .                        | 8S; 8E       | Hidalgo: Jasper . . .                  | 8N; 10E     |
| Elbridge: Edgar . . .                       | 12-13N; 11W  | Hidalgo N: Cumberland . . .            | 9N; 9E      |
| Eldorado C: Saline . . .                    | 8S; 6-7E     | Hill: Effingham . . .                  | 6N; 6E      |
| Eldorado E: Saline . . .                    | 8S; 7E       | Hill E: Effingham . . .                | 6N; 6E      |
| Eldorado W: Saline . . .                    | 8S; 6E       | Hoffman: Clinton . . .                 | 1N; 2W      |
| Elk Prairie: Jefferson . . .                | 4S; 2E       | Hoodville E: Hamilton . . .            | 5S; 7E      |
| Elkton: Washington . . .                    | 2S; 4W       | Hord: Clay . . .                       | 5N; 6E      |
| Elkville: Jackson . . .                     | 7S; 1W       | Hord S: Clay . . .                     | 5N; 6E      |
| Ellery C: Edwards, Wayne . . .              | 2S; 9-10E    | Hornsby S: Macoupin . . .              | 8N; 6W      |
| Ellery E: Edwards . . .                     | 2S; 10E      | Hoyleton W: Washington . . .           | 1S; 2W      |
| Ellery N: Edwards . . .                     | 2S; 10E      | Huey: Clinton . . .                    | 2N; 2W      |
| Ellery S: Edwards . . .                     | 2-3S; 10E    | Huey S: Clinton . . .                  | 1-2N; 2-3W  |
| Elliottstown: Effingham . . .               | 7N; 7E       | Hunt City: Jasper . . .                | 7N; 10E     |
| Elliottstown E: Effingham . . .             | 7N; 7E       | Hunt City E: Jasper . . .              | 7N; 14W     |
| Elliottstown N: Effingham . . .             | 7N; 7E       | Hunt City S: Jasper . . .              | 7N; 11E     |
| Enfield: White . . .                        | 5S; 8E       | Ina: Jefferson . . .                   | 4S; 2-3E    |
| Evers: Effingham . . .                      | 8N; 7E       | Ina North: Jefferson . . .             | 4S; 3E      |
| Evers S: Effingham . . .                    | 7N; 7E       | Inclose: Edgar, Clark . . .            | 12N; 13-14W |
| Ewing: Franklin . . .                       | 5S; 3E       | Ingraham: Clay . . .                   | 4N; 8E      |
| Ewing E: Franklin . . .                     | 5S; 3E       | Inman E C: Gallatin . . .              | 7-8S; 10E   |



TABLE 9.—(Continued)

| Pool: County                   | Twp.—Range   | Pool: County                   | Twp.—Range        |
|--------------------------------|--------------|--------------------------------|-------------------|
| Inman W C: Gallatin . . .      | 7-8S; 9-10E  | Long Branch S: Saline . . .    | 8S; 6E            |
| Iola Central: Clay . . .       | 5N; 5E       | Louden: Fayette, Effingham     | 6-9N; 2-4E        |
| Iola C: Clay, Effingham . . .  | 5-6N; 5-6E   | Louisville N: Clay . . .       | 4N; 6E            |
| Iola S: Clay . . .             | 4N; 5E       | Lynchburg: Jefferson . . .     | 3S; 4E            |
| Iola W: Clay . . .             | 5N; 5E       |                                |                   |
| Irvington: Washington . . .    | 1S; 1W       | McKinley: Washington . . .     | 3S; 4W            |
| Irvington E: Jefferson . . .   | 1S; 1E       | Main C: Crawford . . .         | 5-8N; 10-14W      |
| Irvington N: Washington . . .  | 1N, 1S; 1W   | Maple Grove C: Edwards,        |                   |
| Iuka: Marion . . .             | 2N; 4E       | Wayne . . .                    | 1N; 9-10E         |
| Iuka W: Marion . . .           | 2N; 3E       | Maple Grove S: Edwards . . .   | 1N; 10E           |
|                                |              | Marcoc: Jefferson . . .        | 3S; 2E            |
| Jacksonville Gas: Morgan . . . | 15N; 9W      | Marine: Madison . . .          | 4N; 6W            |
| Johnson N: Clark . . .         | 9-10N; 14W   | Marion: Williamson . . .       | 9S; 3E            |
| Johnson S: Clark . . .         | 9N; 14W      | Markham City: Jefferson . . .  | 2-3S; 4E          |
| Johnsonville C: Wayne . . .    | 1N, 1S; 6-7E | Markham City N: Jefferson,     |                   |
| Johnsonville N: Wayne . . .    | 1N; 6E       | Wayne . . .                    | 2S; 4-5E          |
| Johnsonville S: Wayne . . .    | 1S; 6E       | Markham City W: Jefferson      | 2-3S; 4E          |
| Johnsonville W: Wayne . . .    | 1N, 1S; 5-6E |                                |                   |
| Junction: Gallatin . . .       | 9S; 9E       | Martinsville: Clark . . .      | 9-10N; 13-14W     |
| Junction City: Marion . . .    | 2N; 1E       | Mason N: Effingham . . .       | 6N; 5E            |
| Junction City S: Marion . . .  | 2N; 1E       | Massilon: Wayne, Edwards       | 1S; 9-10E         |
|                                |              | Massilon S: Edwards . . .      | 1S; 10E           |
| Junction E: Gallatin . . .     | 8-9S; 9E     | Mattoon: Coles . . .           | 11-12N; 7-8E      |
| Junction N: Gallatin . . .     | 8-9S; 9E     | Maunie E: White . . .          | 6S; 11E           |
| Keensburg E: Wabash . . .      | 2S; 13W      | Maunie N C: White . . .        | 5-6S; 10-11E, 14W |
| Keensburg S: Wabash . . .      | 2-3S; 13W    | Maunie S C: White . . .        | 6S; 10-11E        |
| Keenville: Wayne . . .         | 1S; 5E       | Mayberry: Wayne . . .          | 2-3S; 6E          |
| Keenville E: Wayne . . .       | 1S; 5E       | Mayberry N: Wayne . . .        | 2S; 6E            |
| Kell: Jefferson . . .          | 1S; 3E       |                                |                   |
| Kenner: Clay . . .             | 3N; 5-6E     | Melrose: Clark . . .           | 9N; 13W           |
| Kenner N: Clay . . .           | 3N; 6E       | Melrose S: Clark . . .         | 9N; 13W           |
| Kenner W: Clay . . .           | 3N; 5E       | Miletus: Marion . . .          | 4N; 4E            |
|                                |              | Mill Shoals: White, Ham-       |                   |
| Kenner S: Clay . . .           | 2N; 5E       | ilton, Wayne . . .             | 2-4S; 7-8E        |
| Keyesport: Clinton . . .       | 3N; 2W       | Mills Prairie: Edwards . . .   | 1N; 14W           |
| King: Jefferson . . .          | 3-4S; 3E     | Mills Prairie N: Edwards . . . | 1N; 14W           |
| Kincaid: Christian . . .       | 13N; 3W      | Mitchellsville: Saline . . .   | 10S; 6E           |
| Kincaid S: Christian . . .     | 13N; 3W      | Mt. Auburn C: Christian . . .  | 15N; 1-2W         |
| Kinmundy: Marion . . .         | 4N; 3E       | Mt. Carmel: Wabash . . .       | 1N, 1S; 12W       |
| Kinmundy N: Marion . . .       | 4N; 3E       | Mt. Erie N: Wayne . . .        | 1N; 9E            |
| Laclede: Fayette . . .         | 5N; 4E       |                                |                   |
| Lakewood: Shelby . . .         | 10N; 2-3E    | Mt. Olive: Montgomery . . .    | 8N; 5W            |
| Lancaster: Wabash, Law-        |              | Mt. Vernon: Jefferson . . .    | 3S; 3E            |
| rence . . .                    | 1-2N; 13W    | Mt. Vernon N: Jefferson . . .  | 2S; 3E            |
|                                |              | Murdock: Douglas . . .         | 16N; 10E          |
| Lancaster Central: Wabash      | 1N; 13W      | Nason: Jefferson . . .         | 3S; 2E            |
| Lancaster E: Wabash . . .      | 2N; 13W      | New Bellair: Crawford . . .    | 8N; 13W           |
| Lancaster S: Wabash . . .      | 1N; 13W      | New City: Sangamon . . .       | 14N; 4W           |
| Langewisch-Kuester: Marion     | 1N; 1E       | New Harmony C: White,          |                   |
| Lawrence: Lawrence, Craw-      |              | Wabash, Edwards . . .          | 1N, 1-5S; 13-14W  |
| ford . . .                     | 2-5N; 11-13W | New Harmony S: White . . .     | 5S; 14W           |
| Lawrence W: Lawrence . . .     | 3N; 13W      | New Harmony S (Ind.):          |                   |
| Lexington: Wabash . . .        | 1S; 14W      | White . . .                    | 5S; 14W           |
| Lexington N: Wabash . . .      | 1S; 14W      |                                |                   |
| Lillyville: Cumberland,        |              | New Haven C: White . . .       | 7S; 10-11E        |
| Effingham . . .                | 8-9N; 6-7E   | New Hebron E: Crawford . . .   | 6N; 12W           |
| Litchfield: Montgomery . . .   | 8-9N; 5W     | New Memphis: Clinton . . .     | 1N, 1S; 5W        |
|                                |              | New Memphis E: Wash-           |                   |
| Livingston: Madison . . .      | 6N; 6W       | ington . . .                   | 1S; 4W            |
| Livingston E Gas: Madison      | 6N; 6W       | New Memphis N: Clinton . . .   | 1N, 1S; 5W        |
| Livingston S: Madison . . .    | 5-6N; 6W     | New Memphis S: Clinton,        |                   |
| Locust Grove: Wayne . . .      | 1N; 9E       | Washington . . .               | 1S; 5W            |
| Locust Grove S: Wayne . . .    | 1S; 9E       | Newton: Jasper . . .           | 6N; 9E            |
| Long Branch: Saline,           |              | Newton N: Jasper . . .         | 7N; 10E           |
| Hamilton . . .                 | 7S; 6E       |                                |                   |

TABLE 9.—(Continued)

| Pool: County                           | Twp.—Range        | Pool: County                             | Twp.—Range          |
|--|-------------------|--|---------------------|
| Newton W: Jasper . . .                 | 6-7N; 9E          | Richview: Washington . . .               | 2S; 1W              |
| Noble W: Clay . . .                    | 3N; 8E            | Ridgway: Gallatin . . .                  | 8S; 8E              |
| Oakdale: Jefferson . . .               | 2S; 4E            | Riffe: Clay . . .                        | 4N; 6E              |
| Oakley: Macon . . .                    | 16N; 3E           | Rinard: Wayne . . .                      | 2N; 7E              |
| Oak Point: Clark, Jasper . . .         | 8-9N; 14W         | Rinard N: Wayne . . .                    | 2N; 7E              |
| Oak Point W: Clark . . .               | 9N; 14W           | Ritter: Richland . . .                   | 3N; 10-11E          |
| Odin: Marion . . .                     | 2N; 1-2E          | Ritter N: Richland . . .                 | 3N; 11E             |
| Okawville: Washington . . .            | 1S; 4W            | Roaches: Jefferson . . .                 | 2S; 1E              |
| Okawville N: Washington . . .          | 1S; 4W            | Roaches N: Jefferson . . .               | 2S; 1E              |
| Old Ripley: Bond . . .                 | 5N; 4W            | Roby: Sangamon . . .                     | 15N; 3W             |
| Olney C: Richland . . .                | 4N; 10E           | Roby W: Sangamon . . .                   | 15N; 3W             |
| Olney S: Richland . . .                | 3N; 10E           | Rochester: Wabash . . .                  | 2S; 13W             |
| Omaha: Gallatin . . .                  | 7-8S; 8E          | Roland C: White, Gallatin . . .          | 5-7S; 8-9E          |
| Omaha E: Gallatin . . .                | 8S; 8E            | Roland W: Saline . . .                   | 7S; 7E              |
| Omaha S: Gallatin, Saline . . .        | 8S; 7-8E          | Ruark: Lawrence . . .                    | 2N; 12W             |
| Omaha W: Saline . . .                  | 7-8S; 7E          | Ruark W C: Lawrence . . .                | 2N; 13W             |
| Omega: Marion . . .                    | 3N; 4E            | Rural Hill N: Hamilton . . .             | 5S; 5E              |
| Orchardville: Wayne . . .              | 1N; 5E            | Russellville Gas: Lawrence . . .         | 4-5N; 10-11W        |
| Orchardville N: Wayne . . .            | 1N; 5E            | Russellville W: Lawrence . . .           | 5N; 11W             |
| Oskaloosa: Clay . . .                  | 3-4N; 5E          | St. Francisville: Lawrence . . .         | 2N; 11W             |
| Oskaloosa E: Clay . . .                | 3N; 5-6E          | St. Francisville E: Lawrence . . .       | 2N; 11W             |
| Oskaloosa S: Clay . . .                | 3N; 5E            | St. Jacob: Madison . . .                 | 3N; 6W              |
| Pana: Christian . . .                  | 11-12N; 1E        | St. Jacob E: Madison . . .               | 3N; 6W              |
| Panama: Bond, Montgomery . . .         | 7N; 3-4W          | St. James: Fayette . . .                 | 5-6N; 2-3E          |
| Pankeyville: Saline . . .              | 9S; 6E            | St. Paul: Fayette . . .                  | 5N; 3E              |
| Pankeyville E: Saline . . .            | 9S; 7E            | Ste. Marie: Jasper . . .                 | 5N; 11E-14W         |
| Parkersburg C: Richland, Edwards . . . | 1-3N; 10-11E, 14W | Ste. Marie E: Jasper . . .               | 6N; 14W             |
| Parkersburg S: Edwards . . .           | 1N; 14W           | Ste. Marie W: Jasper . . .               | 5-6N; 10E           |
| Parkersburg W: Richland, Edwards . . . | 2N; 10E           | Sailor Springs Central: Clay . . .       | 4N; 7-8E            |
| Passport: Clay . . .                   | 4-5N; 8E          | Sailor Springs C: Clay, Effingham . . .  | 3-6N; 6-8E          |
| Passport S: Richland, Clay . . .       | 4N; 8-9E          | Sailor Springs E: Clay . . .             | 4N; 8E              |
| Passport W: Clay . . .                 | 4N; 8E            | Sailor Springs N: Clay . . .             | 4N; 8E              |
| Patoka: Marion . . .                   | 3-4N; 1E, 1W      | Salem C: Marion, Jefferson . . .         | 1-2N, 1S; 1-2E      |
| Patoka E: Marion . . .                 | 4N; 1E            | Samsville: Edwards . . .                 | 1N; 11E             |
| Patoka S: Marion . . .                 | 3N; 1E            | Samsville N: Edwards . . .               | 1N; 14W             |
| Patoka W: Fayette . . .                | 4N; 1W            | Samsville NW: Edwards . . .              | 1N; 10E             |
| Phillipstown C: White, Edwards . . .   | 3-5S; 10-11E, 14W | Samsville W: Edwards . . .               | 1N; 10E             |
| Phillipstown S: White . . .            | 5S; 10E           | Sandoval: Marion . . .                   | 2N; 1E              |
| Pinkstaff: Lawrence . . .              | 4N; 11W           | Sandoval W: Clinton . . .                | 2N; 1W              |
| Pinkstaff E: Lawrence . . .            | 4N; 11W           | Santa Fe: Clinton . . .                  | 1N; 3W              |
| Pittsfield Gas: Pike . . .             | 5S; 4-5W          | Schnell: Richland . . .                  | 2N; 9E              |
| Plainview: Macoupin . . .              | 9N; 8W            | Schnell E: Richland . . .                | 2N; 9E              |
| Posen: Washington . . .                | 3S; 2W            | Schnell S: Clay . . .                    | 2N; 8E              |
| Posen N: Washington . . .              | 3S; 2W            | Seminary: Richland . . .                 | 2N; 10E             |
| Posen S: Washington . . .              | 3S; 2W            | Sesser: Franklin . . .                   | 5-6S; 1-2E          |
| Posey: Clinton . . .                   | 1N; 2W            | Shattuc: Clinton . . .                   | 2N; 1W              |
| Posey E: Clinton . . .                 | 1N; 2W            | Shawneetown: Gallatin . . .              | 9S; 9E              |
| Posey W: Clinton . . .                 | 1N; 3W            | Shawneetown E: Gallatin . . .            | 9S; 10E             |
| Prentice: Morgan . . .                 | 16N; 8W           | Shawneetown N: Gallatin . . .            | 9S; 10E             |
| Raccoon Lake: Marion . . .             | 1N; 1E            | Shelbyville C: Shelby . . .              | 11N; 4E             |
| Raleigh: Saline . . .                  | 7-8S; 6E          | Sicily: Christian . . .                  | 13N; 4W             |
| Raleigh S: Saline . . .                | 8S; 6E            | Siggins: Cumberland, Clark . . .         | 10-11N; 10-11E, 14W |
| Raymond: Montgomery . . .              | 10N; 4-5W         | Sorento C: Bond . . .                    | 6N; 4W              |
| Raymond E: Montgomery . . .            | 10N; 4W           | Sorento W: Bond . . .                    | 6N; 4W              |
| Redmon N: Edgar . . .                  | 14N; 13W          | Spanish Needle Creek Gas: Macoupin . . . | 9N; 7W              |
| Reservoir: Jefferson . . .             | 1S; 3E            | Sparta Gas: Randolph . . .               | 4-5S; 5-6W          |

TABLE 9.—(Continued)

| Pool: County                    | Twp.—Range    | Pool: County                                | Twp.—Range         |
|---------------------------------|---------------|---|--------------------|
| Sparta S: Randolph . . .        | 5S; 5W        | Waggoner: Montgomery . . .                  | 11N; 5W            |
| Stanford S: Clay, Wayne . . .   | 2N; 7E        | Wakefield: Jasper . . .                     | 5N; 9E             |
| Staunton: Macoupin . . .        | 7N; 7W        | Wakefield N: Jasper . . .                   | 5N; 9E             |
| Staunton Gas: Macoupin . . .    | 7N; 7W        | Wakefield S: Richland . . .                 | 5N; 9E             |
| Staunton W: Macoupin . . .      | 7N; 7W        | Walpole: Hamilton . . .                     | 6-7S; 6E           |
| Stewardson: Shelby . . .        | 10N; 5E       | Walpole S: Hamilton . . .                   | 7S; 6E             |
| Storms C: White . . .           | 5-6S; 9-10E   | Waltonville: Jefferson . . .                | 3S; 2E             |
| Stringtown: Richland . . .      | 4-5N; 11E-14W | Wamac: Clinton, Marion,<br>Washington . . . | 1N; 1E, 1W         |
| Stringtown E: Richland . . .    | 4N; 14W       |   |                    |
| Stubblefield S: Bond . . .      | 4N; 3W        |   |                    |
|                                 |               | Wamac E: Marion . . .                       | 1N; 1E             |
| Sumner: Lawrence . . .          | 4N; 13W       | Warrenton-Borton: Edgar,<br>Coles . . .     | 13-14N; 13-14W     |
| Sumpter: White . . .            | 4S; 9E        | Waterloo: Monroe . . .                      | 1-2S; 10W          |
| Sumpter E: White . . .          | 4-5S; 10E     | Waverly Gas: Morgan . . .                   | 13N; 8W            |
| Sumpter N: White . . .          | 4S; 9E        | Weaver: Clark . . .                         | 11N; 10W           |
| Sumpter S: White . . .          | 4-5S; 9E      | West Frankfort C: Franklin . . .            | 7S; 2-3E           |
| Sumpter W: White . . .          | 4S; 9E        | Westfield: Clark, Coles . . .               | 11-12N; 11E-14W    |
| Tamaroa: Perry . . .            | 4S; 1W        | Westfield E: Clark . . .                    | 11-12N; 14W        |
| Tamaroa S: Perry . . .          | 4S; 1W        | Westfield N: Coles . . .                    | 12N; 14W           |
| Tamaroa W: Perry . . .          | 4S; 2W        | Whittington: Franklin . . .                 | 5S; 3E             |
| Taylor Hill: Franklin . . .     | 5S; 4E        |   |                    |
| Thackeray: Hamilton . . .       | 5S; 7E        | Whittington S: Franklin . . .               | 5-6S; 3E           |
| Thompsonville: Franklin . . .   | 7S; 4E        | Whittington W: Franklin . . .               | 5S; 2E             |
| Thompsonville E: Franklin . . . | 7S; 4E        | Williams C: Jefferson . . .                 | 3S; 2E             |
| Thompsonville N: Franklin . . . | 7S; 4E        | Willow Hill E: Jasper . . .                 | 6-7N; 10-11E       |
| Tilden: Randolph . . .          | 4S; 5W        | Woburn C: Bond . . .                        | 6-7N; 2W           |
| Toliver E: Clay . . .           | 5N; 6-7E      | Woodlawn: Jefferson . . .                   | 2-3S; 1-2E         |
| Toliver S: Clay . . .           | 4N; 5-6E      | Xenia: Clay . . .                           | 2N; 5E             |
| Tonti: Marion . . .             | 2-3N; 2E      | Xenia E: Clay . . .                         | 2N; 5E             |
| Tovey: Christian . . .          | 13N; 3W       | York: Cumberland, Clark . . .               | 9-10N; 10-11E, 14W |
| Trumbull: White . . .           | 5S; 8-9E      | Zenith: Wayne . . .                         | 2N; 5E             |
|                                 |               | Zenith N: Wayne . . .                       | 2N; 6E             |
| Trumbull W: White . . .         | 5S; 8E        | Zenith S: Wayne . . .                       | 1N; 5E             |
| Valier: Franklin . . .          | 6S; 2E        |   |                    |

TABLE 10.—POOLS INCORPORATED INTO OTHER POOLS  
BY CONSOLIDATION  
C = Consolidated

| Original pool name;<br>first consolidation | Present pool<br>assignment | Date<br>of<br>first<br>con-<br>sol. | Original pool name;<br>first consolidation    | Present pool<br>assignment          | Date<br>of<br>first<br>con-<br>sol. |
|--|----------------------------|-------------------------------------|---|-------------------------------------|-------------------------------------|
| Aden N . . . . .                           | Aden C                     | 1944                                | Boos; Dundas C . . . . .                      | Clay City C                         | 1941                                |
| Albion N . . . . .                         | Albion C                   | 1944                                | Boos E; Willow Hill C . . . . .               | Clay City C                         | 1947                                |
| Allison-Weger . . . . .                    | Main C                     | 1955                                | Boos N . . . . .                              | Clay City C                         | 1948                                |
| Assumption N . . . . .                     | Assumption C               | 1953                                | Boyleston C . . . . .                         | Clay City C                         | 1948                                |
| Barnhill E . . . . .                       | Goldengate C               | 1944                                | Brownsville; Stokes-Brown-<br>ville . . . . . | Roland C                            | 1946                                |
| Bend . . . . .                             | New Harmony C              | 1952                                | Burnt Prairie; Leech Twp. . . . .             | Goldengate C                        | 1947                                |
| Bennington . . . . .                       | Maple Grove C              | 1952                                |   |                                     |                                     |
| Bible Grove C . . . . .                    | Sailor Springs C           | 1949                                | Calvin . . . . .                              | New Harmony C and<br>Phillipstown C | 1941                                |
| Bible Grove E; Bible Grove<br>C . . . . .  | Sailor Springs C           | 1948                                | Calvin N . . . . .                            | Phillipstown C                      | 1948                                |
| Birds . . . . .                            | Main C                     | 1955                                | Cantrell C . . . . .                          | Dale C                              | 1955                                |
|  |                            |                                     | Cantrell N . . . . .                          | Dale C                              | 1956                                |
| Blairsville . . . . .                      | Bungay C                   | 1951                                | Cantrell S; Cantrell C . . . . .              | Dale C                              | 1953                                |
| Bone Gap S . . . . .                       | Bone Gap C                 | 1952                                | Chapman . . . . .                             | Main C                              | 1954                                |
| Bonpas . . . . .                           | Parkersburg C              | 1951                                | Cisne . . . . .                               | Clay City C                         | 1948                                |
| Bonpas W . . . . .                         | Parkersburg C              | 1944                                |   |                                     |                                     |

CONSOLIDATED POOLS

TABLE 10.—(Continued)

| Original pool name;<br>first consolidation | Present pool<br>assignment | Date<br>of<br>first<br>con-<br>sol. | Original pool name;<br>first consolidation | Present pool<br>assignment          | Date<br>of<br>first<br>con-<br>sol. |
|--|----------------------------|-------------------------------------|--|-------------------------------------|-------------------------------------|
| Cisne N                                    | Clay City C                | 1954                                | Lancaster N                                | Ruark W C                           | 1952                                |
| Clay City N                                | Clay City C                | 1954                                | Lancaster W                                | Berryville C                        | 1949                                |
| Concord Central; Concord<br>S C            | Herald C                   | 1952                                | Leech C                                    | Goldengate C                        | 1948                                |
| Concord N                                  | Concord C                  | 1955                                | Maple Grove E                              | Parkersburg C                       | 1952                                |
| Concord S C                                | Herald C                   | 1955                                | Mason                                      | Iola C                              | 1956                                |
| Cooks Mills E                              | Cooks Mills C              | 1956                                | Mason S                                    | Iola C                              | 1948                                |
| Cooks Mills Gas                            | Cooks Mills C              | 1955                                | Maud Central; Maud N C                     | New Harmony C                       | 1949                                |
| Cooks Mills N                              | Cooks Mills C              | 1955                                | Maud C                                     | New Harmony C                       | 1951                                |
| Cottonwood                                 | Herald C                   | 1953                                | Maud N C                                   | New Harmony C                       | 1951                                |
| Cottonwood N                               | Herald C                   | 1953                                | Maud W; Maud N C                           | New Harmony C                       | 1948                                |
| Covington; Boyleston C                     | Clay City C                | 1944                                | Maunie                                     | Maunie S C                          | 1948                                |
| Covington E                                | Clay City C                | 1948                                | Maunie W                                   | Maunie N C                          | 1955                                |
| Cowling                                    | New Harmony C              | 1947                                | Merriam                                    | Clay City C                         | 1953                                |
| Dead River                                 | New Haven C                | 1950                                | Mitchell                                   | Ellery C                            | 1952                                |
| Dix  | Salem C                    | 1954                                | Mr. Auburn Central                         | Mr. Auburn C                        | 1954                                |
| Dubois W                                   | Dubois C                   | 1955                                | Mr. Auburn E                               | Mr. Auburn C                        | 1954                                |
| Dundas C                                   | Clay City C                | 1948                                | Mr. Carmel W                               | New Harmony C                       | 1948                                |
| Eldorado Central                           | Eldorado C                 | 1954                                | Mr. Erie                                   | Clay City C                         | 1944                                |
| Eldorado N                                 | Eldorado C                 | 1955                                | Mr. Erie S                                 | Clay City C                         | 1948                                |
| Ellery W                                   | Ellery C                   | 1952                                | New Haven N                                | Concord E C                         | 1950                                |
| Enterprise                                 | Clay City C                | 1941                                | New Haven W                                | Inman E C                           | 1949                                |
| Enterprise W                               | Clay City C                | 1941                                | New Hebron                                 | Main C                              | 1955                                |
| Epworth C                                  | Storms C                   | 1957                                | Noble                                      | Clay City C                         | 1948                                |
| Epworth E; Epworth C                       | Storms C                   | 1951                                | Noble N                                    | Clay City C                         | 1948                                |
| Fairfield                                  | Clay City C                | 1953                                | Noble S                                    | Clay City C                         | 1948                                |
| Fairfield E                                | Clay City C                | 1953                                | Norris City                                | Roland C                            | 1955                                |
| Flannigan                                  | Dale C                     | 1955                                | North City                                 | Christopher C                       | 1954                                |
| Flat Rock                                  | Main C                     | 1954                                | Olney E                                    | Olney C                             | 1949                                |
| Flora                                      | Sailor Springs C           | 1955                                | Parker                                     | Main C                              | 1954                                |
| Friendsville                               | New Harmony C              | 1949                                | Parkersburg N                              | Parkersburg C                       | 1951                                |
| Friendsville S                             | New Harmony C              | 1949                                | Patton                                     | Allendale C                         | 1948                                |
| Gallagher                                  | Calhoun C                  | 1946                                | Patton W                                   | Allendale C                         | 1948                                |
| Gards Point N                              | Gards Point C              | 1957                                | Roundprairie                               | Johnsonville C                      | 1941                                |
| Geff                                       | Clay City C                | 1947                                | Rural Hill                                 | Dale C                              | 1951                                |
| Geff W                                     | Clay City C                | 1948                                | Rural Hill W                               | Dale C                              | 1955                                |
| Goldengate W                               | Goldengate N C             | 1953                                | Sailor Springs S                           | Sailor Springs C                    | 1942                                |
| Gossett                                    | Roland C                   | 1954                                | Sailor Springs W                           | Sailor Springs C                    | 1949                                |
| Grayville                                  | Phillipstown C             | 1948                                | Shelbyville E                              | Shelbyville C                       | 1956                                |
| Grayville W                                | Albion C                   | 1949                                | Sims                                       | Johnsonville C                      | 1948                                |
| Griffin                                    | New Harmony C              | 1941                                | Sims N                                     | Johnsonville C                      | 1945                                |
| Helena                                     | Ruark W C                  | 1952                                | Springerton                                | Bungay C                            | 1946                                |
| Herald E; Concord S C                      | Herald C                   | 1953                                | Stanford                                   | Clay City C and<br>Sailor Springs C | 1953                                |
| Herald N                                   | Storms C                   | 1953                                | Stanford W                                 | Sailor Springs C                    | 1953                                |
| Hoodville                                  | Dale C                     | 1943                                | Stokes-Brownsville; Iron C                 | Roland C                            | 1953                                |
| Hoosier; Bible Grove C                     | Sailor Springs C           | 1948                                | Swearingen Gas                             | Main C                              | 1955                                |
| Hoosier N; Bible Grove C                   | Sailor Springs C           | 1948                                | Toliver                                    | Hord S                              | 1955                                |
| Ingraham W; Bible Grove C                  | Sailor Springs C           | 1948                                | West End                                   | Dale C                              | 1955                                |
| Inman                                      | Inman W C                  | 1950                                | West Frankfort S                           | West Frankfort C                    | 1948                                |
| Inman Central                              | Inman W C                  | 1949                                | West Liberty; Dundas C                     | Clay City C                         | 1941                                |
| Inman N                                    | Inman W C                  | 1949                                | Williams S                                 | Williams C                          | 1953                                |
| Inman S                                    | Inman W C                  | 1950                                | Willow Hill C                              | Clay City C                         | 1948                                |
| Iron C                                     | Roland C                   | 1954                                | Willow Hill N; Willow Hill<br>C            | Clay City C                         | 1947                                |
| Keensburg C                                | New Harmony C              | 1948                                | Woburn S                                   | Woburn C                            | 1950                                |

## COUNTY REPORTS

TABULATED PRODUCTION FOR 1957

| County                     | M bbls. | County                      | M bbls. | County               | M bbls. |
|----------------------------|---------|-----------------------------|---------|----------------------|---------|
| Adams . . . . .            | 0*      | Hamilton . . . . .          | 3,265   | Randolph . . . . .   | 183     |
| Bond . . . . .             | 884     | Hancock-McDonough . . . . . | 65      | Richland . . . . .   | 2,250   |
| Christian . . . . .        | 1,757   | Jackson . . . . .           | 0‡      | St. Clair . . . . .  | 10      |
| Clark-Cumberland . . . . . | 1,740   | Jasper . . . . .            | 1,153   | Saline . . . . .     | 1,273   |
| Clay . . . . .             | 4,512   | Jefferson . . . . .         | 2,839   | Sangamon . . . . .   | 20      |
| Clinton . . . . .          | 4,003   | Lawrence . . . . .          | 4,672   | Shelby . . . . .     | 35      |
| Coles . . . . .            | 1,011   | Macon . . . . .             | 82      | Wabash . . . . .     | 3,135   |
| Crawford . . . . .         | 2,964   | Macoupin . . . . .          | 1       | Washington . . . . . | 899     |
| Douglas . . . . .          | 819     | Madison . . . . .           | 335     | Wayne . . . . .      | 5,351   |
| Edgar . . . . .            | 100     | Marion . . . . .            | 6,546   | White . . . . .      | 7,819   |
| Edwards . . . . .          | 1,752   | Montgomery . . . . .        | 3       | Williamson . . . . . | 63      |
| Effingham . . . . .        | 525     | Morgan . . . . .            | 0‡      |                      |         |
| Fayette . . . . .          | 12,113  | Moultrie . . . . .          | 8       | TOTAL . . . . .      | 76,649  |
| Franklin . . . . .         | 1,724   | Perry . . . . .             | 32      |                      |         |
| Gallatin . . . . .         | 2,708   | Pike . . . . .              | 0*      |                      |         |

\*Only gas.

‡All wells abandoned or temporarily shut down.

## ADAMS COUNTY

Thirteen wells were drilled for oil or gas in Adams County in 1957, almost one-third of all the tests which have been made in that county. No oil has been discovered, but three gas wells were completed in 1957, two in the Beverly Gas pool (a 1957 discovery), and the third in the Fishhook pool, most of which is in Pike County. The three wells had a total initial open flow capacity of about a million cubic feet. All are shut in. The Fishhook pool may be used for gas storage, but no plan of utilization has been announced for the Beverly pool.

The 10 dry holes included 2 in pools and 8 wildcats. Most of the tests were in Silurian strata, their depths averaging about 650 feet.

## BOND COUNTY

Bond is one of the counties in which drilling decreased most in 1957. Well completions dropped from 126 in 1956 to 65 in 1957, and successful wells dropped considerably further, from 42 in 1956 to 16 in 1957.

The one new oil pool, New Douglas South, consisted of a single Pennsylvanian sand well which had not had any pipe line runs by the end of the year. Other producing wells drilled in 1957 were 8 Pennsylvanian sand wells in Old Ripley

pool, 3 Pennsylvanian and 4 Devonian wells in Sorento Consolidated, and 1 Aux Vases in Woburn Consolidated. The figures include 1 dry hole reworked to a producer in addition to the 16 newly drilled producers.

Dry holes included 28 in pools, 13 wildcats within two miles of production (wildcats near), and 8 wildcats more than two miles from production (wildcats far).

Crude oil production in 1957 in Bond County was almost entirely confined to three pools: Sorento Consolidated with 488,000 barrels, Woburn Consolidated with 349,000 barrels, and Old Ripley with 41,000. Total production for the county for the year was 884,000 barrels of oil. Secondary recovery operations have been tried in Bond County but have not been very successful.

## CHRISTIAN COUNTY

Christian County appears to have had an increase in drilling from 84 completions in 1956 to 111 in 1957. However, many of the 1957 completions are in the Kincaid area and were actually running oil in 1956 but were not reported as completed until 1957 because data on them were not available earlier. The number of wells actually completed in 1957 was slightly less than in 1956.

The 111 wells reported completed in 1957 include 59 oil wells, 22 pool dry holes,

8 wildcats less than two miles from production, and 22 wildcats more than two miles from production. All of the producing wells were in Silurian or Devonian limes and sands, 38 in the Kincaid and Kincaid South pools, 2 in Sicily, 5 in Blackland, and 15 in Mt. Auburn Consolidated (includes 1 well worked over from a dry hole to a producer).

Crude oil production for the county for 1957 was 1,758,000 barrels. More than three-quarters of the oil came from Kincaid, Kincaid South, and Assumption Consolidated. Most of the remaining quarter came from Mt. Auburn Consolidated and Edinburg West. Other pools produced only minor amounts.

Secondary recovery by waterflooding has been successful in the Assumption Consolidated pool in all three pays. It has not yet been introduced in the other pools in the county.

#### CLARK-CUMBERLAND COUNTIES

Clark and Cumberland counties are in the older oil-producing area of the state. Many of the wells are drilled on secondary recovery projects in the old fields. Few such wells are reported through the Scouts Association. The following figures are low, and apply for the most part to the newer pool or undeveloped areas of the counties.

Clark County had 84 wells reported drilled in 1957. This includes 9 producing wells in new pools (4 in Melrose, 4 in Oak Point West, and 1 in Oak Point), and 36 producing wells in the old fields. There were 29 dry holes in pools (both old and new), and 10 wildcats.

The new pools in Clark County produced 132,000 barrels of oil in 1957, 100,000 barrels less than in 1956. About one-third of the oil is now coming from the Oak Point pool and two-thirds from the Weaver pool, with insignificant amounts from the remaining pools. Cumulative production for Clark County new pools is about 1,581,000 barrels, of which Weaver has produced 1,392,000 barrels.

Cumberland County had only 8 wells reported completed during 1957. One was

a producing well, 3 were pool dry holes, and 4 were wildcats.

Production from its two new pools (both discovered in 1946) was only 6,500 barrels, bringing its cumulative new pool production up to 262,000 barrels.

Old pool production for Clark and Cumberland counties for 1957 was 1,602,000 barrels of oil, most of it produced by waterflooding. Total old field production for Clark and Cumberland counties is 72,084,000 barrels.

During 1957 the two counties produced 1,740,000 barrels of oil.

#### CLAY COUNTY

Drilling in Clay County in 1957 held up better than in most of the counties which are normally most active. Total completions decreased from 124 in 1956 to 103 in 1957 as contrasted with 50 percent drops in some of the adjacent counties. The 103 completions included 46 producers, 39 dry holes in pools, 17 wildcats less than two miles from production and one wildcat beyond two miles from production.

Clay County oil pools, excluding Clay City Consolidated, produced 2,512,000 barrels in 1957. Production from the Clay City Consolidated pool, which extends into four counties, has not been broken up completely. The Clay County portion of its production is estimated at 2,000,000 barrels for 1957, making total production for the county about 4,512,000 barrels of oil.

#### CLINTON COUNTY

Clinton County had a poor drilling record, but a good production record for 1957. Eighty-three wells were completed, but of this number only about 27 percent were productive (19 oil and 3 gas). Dry holes included 10 in pools, 29 wildcats less than two miles from production and 22 wildcats more than two miles from production.

Production for Clinton County almost doubled in 1957. Most of the county's pools showed declines. Waterflooding of the Centralia pool, which extends into Marion County, increased in effectiveness in 1957. Production for the pool increased

from 593,000 barrels in 1956 to 2,544,000 barrels in 1957. Most of the increased production was from Chester sand wells in Clinton County. Production for the county is estimated at 4,003,000 barrels for 1957.

#### COLES COUNTY

Coles County had one of the biggest decreases in drilling, dropping from 266 completions in 1956 to 60 in 1957. However, Coles County normally has only a small amount of drilling and has had more than 60 wells in one year only twice before, in 1945 and 1946 when the Mattoon pool was being developed and in 1956.

In 1956 the Cooks Mills Consolidated pool was developed. In 1957, 18 Rosiclare oil wells and 2 Cypress gas wells were completed in that pool, and 1 Cypress, 1 Cypress-Rosiclare, and 8 Rosiclare oil wells in the Mattoon pool. There were 11 pool dry holes, 8 wildcats near, and 14 wildcats far.

Crude oil production also declined sharply from 1,636,000 barrels in 1956 to 1,011,000 in 1957, all of the oil coming from Mattoon and Cooks Mills Consolidated pools. Most of the decrease was in the Cooks Mills Consolidated pool, from 1,001,000 to 416,000 barrels.

Secondary recovery operations (waterflooding) began in the Mattoon pool in 1950 and were expanded in 1952. Production reached a low of 377,000 barrels in 1953. After flooding became effective, production rose to a peak of 635,000 barrels in 1956 and then dropped slightly to 595,000 barrels in 1957.

#### CRAWFORD COUNTY

Most of the present drilling in Crawford County is for developing new pays in the old fields or for improving spacing patterns in waterflood areas. In 1957, 158 wells were drilled, including 75 oil wells, 2 gas wells, 72 dry holes in pools, and 9 wildcats. Most of the wells were drilled within the geographic limits of the old Main Consolidated field.

Crawford County oil production for 1957 was about 2,964,000 barrels, due mainly to

secondary recovery. Cumulative production for Crawford County is 174,577,000 barrels of oil for Main Consolidated plus a few thousand for the new minor pools. Crawford County is among the half dozen counties in Illinois which have recovered the most oil, but several counties are currently outproducing it by far and should surpass it soon.

#### DOUGLAS COUNTY

The first oil well in Douglas County was completed in 1955, but no pipe line oil was run until 1956. In 1956, 248 wells were drilled; three new oil pools were discovered and the Cooks Mills Consolidated pool was extended into Douglas County. The 1956 drilling boom lasted until late summer of 1957. One new pool was discovered, Chesterville East, which had 40 Rosiclare oil wells at the end of the year. A total of 115 wells were drilled in Douglas County in 1957, most of them during the spring and summer. All of the producing wells (51 new wells and 3 workovers from former dry holes) were in the Chesterville East or Bourbon pools. Dry holes included 28 in pools, 20 wildcats less than two miles from production, and 16 wildcats more than two miles from production.

Crude oil production increased in Douglas County in 1957 because of Chesterville East. Total production for the year was 819,000 barrels, an increase of 95,000 barrels. Chesterville East produced 464,000 barrels, or more than one-half. Bourbon and Cooks Mills Consolidated both showed big drops in production, the former from 490,000 to 273,000 barrels, and the latter from 216,000 to 64,000 barrels. Production from the other pools in the county was negligible. All production in Douglas County is from the Rosiclare.

#### EDGAR COUNTY

In 1957, Edgar County drilling for oil and gas dropped over 50 percent from the previous year. Only 16 wells were completed. Inclose and Grandview each had one small Pennsylvanian sand well. The other 14 holes were dry, 2 of them pool dry holes and 12 wildcats.

Crude oil production for Edgar County for 1957 amounted to about 100,000 barrels. Elbridge and Dudley had a total of 97,000 barrels, with small amounts from the remaining pools. A little gas was produced and used in the town of Grandview, but it was not metered.

#### EDWARDS COUNTY

In 1957 well completions in Edwards County dropped to about one-half as many as in the previous year and reached the lowest level since 1939. Only 37 wells were drilled in 1957, 10 (or about 25 percent) of which were successful. In 1939 when only 34 wells were drilled, 17 (50 percent) were successful.

Edwards County is so densely drilled it is improbable that any new pools will be discovered. The 1957 drilling includes 10 oil wells, 14 dry holes in pools, and 13 wildcats less than two miles from production.

Crude oil production for Edwards County for 1957 is estimated at 1,752,000 barrels, an increase of about 220,000 barrels over 1956 production. All of the increased production should be attributed to successful flooding projects in the Albion Consolidated pool. All other pools in the county showed declines in production except Berryville Consolidated, which increased less than 1,500 barrels for the year. The Edwards County portion of Albion Consolidated produced 1,124,000 barrels of oil in 1957, an increase of about 275,000 barrels. Six new wells were drilled in the Albion Consolidated pool.

#### EFFINGHAM COUNTY

Drilling was about normal in Effingham County in 1957. Forty-two wells were completed, including 12 oil wells, 13 dry holes in pools, 8 wildcats near, and 9 wildcats far. One new pool was discovered, Watson, consisting of a single Rosiclaré well which had not run any pipeline oil at the end of the year. Ten of the new oil wells were in the Iola Consolidated pool and one in Eberle pool.

There was only a minor decrease in production, from 558,000 barrels in 1956 to

525,000 barrels in 1957, and two of the three largest pools showed increases. Sailor Springs Consolidated and Iola Consolidated, both of which extend from Clay County into Effingham County, had increased production in 1957 in the Effingham County sector of the pool. Production for the two pools (Effingham County area only) was 231,000 barrels for Iola Consolidated and 104,000 barrels for Sailor Springs Consolidated. Hill East, largest pool entirely within the county, made 124,000 barrels of oil in 1957. Production from the small section of the Loudén pool which extends into Effingham County is insignificant.

#### FAYETTE COUNTY

Few counties produce as much oil in a year as the increase in Fayette County production amounted to in 1957. Production for the year was 12,113,000 barrels, an increase of almost 2,000,000 barrels. Most of the oil came from the Loudén pool. Waterflooding of the Loudén pool began in 1950; new projects have been added annually. Production reached its lowest level of 5,131,000 barrels in 1953, increasing to 11,770,000 barrels produced in 1957, representing an increase of 1,843,000 barrels over that of 1956. A small waterflood project was begun in the St. James pool in 1954 resulting in increased production for 1955 and 1956, but it dropped again in 1957 to 314,000 barrels. Production from other pools in the county was insignificant.

Although Fayette is one of the best oil-producing counties in Illinois, most of the drilling was done during two periods when the Loudén pool and its extension and the St. James pool were being drilled. In 1957, 23 wells were drilled, 8 of them oil wells in the Loudén, St. James, and St. Paul pools, 3 of them pool dry holes, 12 wildcats.

#### FRANKLIN COUNTY

Drilling and production both decreased in Franklin County in 1957 at about the same rate as in the whole state.

Sixty-three wells were completed, 31 as oil wells, 18 as pool dry holes, 11 as wild-



cats near production, and 3 as wildcats far. One new pool was discovered, Deering City, with 2 wells which had produced 13,000 barrels of oil by the end of the year. Twelve of the new oil wells were in the Sesser-Christopher Consolidated area, 8 in the Akin pool, and the others were scattered.

Production for Franklin County was 1,724,000 barrels in 1957, a loss of 351,000 barrels from the previous year. The Benton pool, which currently produces about 45 percent of Franklin County's oil, dropped to 772,000 barrels, a loss of 278,000 barrels.

Two pools showed major increases in production in 1957: Whittington West, as a result of 5 new oil wells, and Thompsonville North as a result of flooding.

#### GALLATIN COUNTY

Drilling in Gallatin County fell off about one-third, one of the biggest decreases among the counties during 1957. In a two-year period it dropped from 200 completions in 1955 to 81 in 1957. The 81 wells drilled in 1957 included 51 producers, 23 pool dry holes, and 7 wildcats. The biggest concentration of drilling was in the Inman West Consolidated pool with 31 producing wells. Herald Consolidated had 7 producers, Inman East Consolidated had 4 producers.

There was a small decline in production for the county from 3,057,000 barrels of oil in 1956 to 2,708,000 in 1957. All of the larger pools have approximately equivalent declines. Only one pool, Ab Lake, had a notable increase, from 24,000 barrels in 1956 to 51,000 barrels in 1957.

#### JACKSON COUNTY

Four wells were drilled for oil in Jackson County in 1957. All were completed as dry holes, 2 of them in pools and 2 as wildcats.

No production was reported for the county for 1957. The one-well Elkville pool has had no pipeline runs since 1951. In 1956 an oil well was completed in the abandoned Ava-Campbell Hill pool, but no pipeline runs have been reported.

#### JASPER COUNTY

Drilling in Jasper County dropped off more than 50 percent from 1956 to 1957. Only 56 wells were drilled in 1957. Twenty-nine of them were producers, 16 were dry holes in pools, 9 were wildcats less than two miles from production, and two were more distant wildcats. One new pool, Gila, was discovered. At the end of the year only one small well had been completed, but more wells were drilling than in any other 1957 new pool.

Almost all of the oil in Jasper County comes from the Clay City Consolidated pool. Smaller pools produced about 153,000 barrels of oil, most of them showing some decline in production. The Clay City Consolidated pool extends into four counties. The Jasper County portion of its production for 1957 is estimated at about one million barrels.

#### JEFFERSON COUNTY

Jefferson County showed little decrease in drilling in 1957, but increased its production, in contrast to the decrease for the state as a whole.

Eighty-nine wells were drilled during the year, including 36 oil wells, 33 dry holes in pools, and 20 wildcats.

Twelve pools in Jefferson County had big changes in production in 1957 as compared with that of 1956. Five of these were declines which ranged from 35,000 barrels in Irvington East to 105,000 barrels in the Jefferson County portion of the Salem Consolidated pool (approximately the former Dix pool). Intermediate declines were recorded in Williams Consolidated, King, and Boyd pools.

Increases, reported in seven pools, were a little smaller, ranging from 10,000 barrels in Divide East to 73,000 in Divide West. Secondary recovery has helped to maintain productive levels in some of the pools with increased production, but most of them have also had enough new wells drilled during the year to add substantially to production for the year. The Ina pool, discovered in 1938 and abandoned in 1946 after producing only 16,000 barrels of oil,

had 11 oil wells completed in 1957 which produced 45,000 barrels of oil in one year.

#### HAMILTON COUNTY

In 1957, Hamilton County tied with Crawford County for third place in the state in number of wells drilled. A total of 158 wells were drilled, only three less than in 1956, and almost half of the wells were successful. Seventy-one were completed as oil wells, 58 as pool dry holes, and 29 as unsuccessful wildcats.

Fifty-four of the 71 new oil wells were in the Dale Consolidated pool, most of them in the southwestern part of the pool. The other producers were scattered throughout the pools in the county, with no great concentration in any one area. Only a few of the 1957 wells produce from any pay other than the Aux Vases.

Production for 1957 was almost one million barrels below that for 1956, when production was high. The 1957 production for Hamilton County was 3,265,000 barrels of oil. Although the rate of drilling and percentage of success declined very little, production declined in all of the pools in the county.

#### HANCOCK AND McDONOUGH COUNTIES

Hancock and McDonough counties share one oil pool, Colmar-Plymouth, which has been producing since 1914. Every year a few wells are drilled in an unsuccessful effort to locate more Hoing sand oil pools. Two wells were completed in Hancock County in 1957, both as unsuccessful wildcats.

Production for the Colmar-Plymouth pool for 1957 was 65,000 barrels of oil.

#### LAWRENCE COUNTY

In 1957, 147 wells were drilled for oil or gas in Lawrence County. Of this number, 93 were completed as producers (5 in the new pools and 88 in the Lawrence and St. Francisville pools), 45 were pool dry holes, and 9 were wildcats. Most of the 1957 oil wells produce from Chester sands.

One of the biggest declines in production for 1957 was in the new pools in Law-

rence County. Most of the oil in the new fields comes from 4 pools, three of which (Ruark, Ruark West, Lawrence West) had declines of about 50 percent each; the fourth (St. Francisville East) increased by about 4,000 barrels. New pool production for 1957 was 174,000 barrels as compared with 313,000 barrels for 1956. The new pools in Lawrence County have produced 4,050,000 barrels of oil.

The old Lawrence and St. Francisville pools have produced more oil than any county except Marion but are currently being outproduced by several other counties. Old pool production in Lawrence County for 1957 was 4,498,000 barrels, much of it by waterflooding.

#### MACON COUNTY

Drilling increased slightly, but not significantly, in Macon County in 1957. Most of the northernmost oil-producing counties showed heavy declines for the year. There were 16 wells drilled in 1957 as compared with 13 in 1956. The 16 wells included 5 oil wells (2 in Harristown and 3 in Blackland), 5 dry holes in pools, 5 wildcats within two miles of production, and 1 wildcat more than two miles from production.

Oil production in 1957 was 82,000 barrels, an increase of 10,000 barrels. The biggest pool, Blackland, which extends into Christian County, produced 50,000 barrels in Macon County. Harristown pool, with 1,000 barrels in 1956, increased to 27,000 in 1957.

Five pools have been discovered in Macon County, all of them within the last five years. One of the five has been abandoned and two others probably will not pay out.

#### MACOUPIN COUNTY

Twelve wells were drilled in Macoupin County in 1957, resulting in 1 dry hole in a pool and 11 dry wildcats.

Although oil was discovered in Macoupin County almost 50 years ago, its pools are small and production unimportant. In 1957, pipeline runs amounted to only a few hundred barrels of oil.

## MADISON COUNTY

Madison County probably has a poorer drilling record than any other county with a good production. The 1957 record is typical: 20 wells completed, including 1 producer (a small Pennsylvanian well in Livingston), 3 dry holes in pools, 6 wildcats near, and 12 wildcats far.

Production for 1957 was 335,000 barrels. Madison County is unique also in that it has three good producing areas, one of which is Pennsylvanian, one Silurian-Devonian, and one Trenton; Mississippian pays are lacking. The Marine pool (Silurian-Devonian) has produced and is currently producing about two-thirds of the county's oil. In 1957 it made 233,000 barrels. The remaining one-third is currently about evenly divided between St. Jacob (Trenton) and the Livingston-Livingston South pools (Pennsylvanian). However, St. Jacob has a cumulative production of almost 3,000,000 barrels and the two Pennsylvanian pools have produced only half a million barrels.

## MARION COUNTY

Marion County is one of the few counties showing notable increases in drilling in 1957, and is the only county in which a new pool was discovered which was not marginal to the oil producing area of the state. Eighty-two wells were completed, 42 as oil wells, 24 as dry holes in pools, 10 as wildcats near and 6 as wildcats far.

Most of the new producing wells were concentrated in a small area. Twenty-four Trenton wells were drilled at the southwestern end of the Patoka pool, and 5 more Trenton wells were drilled in the Fairman pool a short distance to the southwest. Nine Chester sand wells were also completed in the Patoka-Fairman-Patoka South area.

Production declined in most pools and for the county as a whole. The Salem Consolidated pool, which produces most of the county's oil, is on a downward trend again after reaching a peak resulting from waterflooding. Marion County ranked third in the state in production, with an estimated 6,546,000 barrels of oil.

## MONTGOMERY COUNTY

Montgomery County has one of the least satisfactory drilling records of any of the oil-producing counties in the state. During the two-year period of 1956 and 1957, 75 wells were drilled, 74 of which were dry. In spite of the decrease in drilling from 1956 to 1957 for the entire state, and Montgomery County's bad record for 1956 (31 dry holes), it was one of the few counties with major increases in drilling in 1957 (44 completions). The 1957 completions included one "producer," a Pennsylvanian sand gas well which has not been put into production. The 43 dry holes included 4 pool dry holes and 39 wildcats.

Montgomery County produced about 3,000 barrels of oil in 1957, most of it from the Raymond East or Panama pools.

## MORGAN COUNTY

Two wells were drilled for oil or gas in Morgan County in 1957. One was completed as a pool dry hole and one as a wildcat.

All three of the Morgan County pools are predominantly gas. Jacksonville was abandoned in 1939. Prentice has had a few barrels of oil but no truly commercial oil or gas production. Efforts to use the Waverly pool for gas storage had not been successful up to the end of 1957.

## MOULTRIE COUNTY

In 1957 there were 11 wells drilled in Moultrie County, all of them unsuccessful wildcats more than two miles from production.

The only pool in the county, Gays, produced 8,000 barrels of oil in 1957, giving the pool and county cumulative totals of 25,000 barrels.

## PERRY COUNTY

Two of the 16 new oil and gas pools in Illinois in 1957 were discovered in Perry County, including one of the best of the new pools, Tamaroa South.

The number of wells drilled and the amount of oil produced in 1957 were high for the county, Perry being one of the few

counties which showed increases in both. Thirty-one wells were drilled. Eight were oil wells, 7 of them Cypress wells in the new Tamaroa South pool and the eighth a Trenton well which discovered the Turkey Bend pool. Six of the wells were dry holes in pools, 10 were unsuccessful wildcats near pools, and 7 were wildcats far.

Production for the county for 1957 was 32,000 barrels, almost double the 18,000 barrels produced in 1956. Tamaroa and Tamaroa South each produced 16,000 barrels. Tamaroa pool production declined about 2,000 barrels; the increase in production resulted entirely from the discovery of Tamaroa South.

#### PIKE COUNTY

No oil has been found in Pike County, but development of the Fishhook gas pool continued throughout 1957. Twenty-five wells were drilled during the year, 10 of which were classified as potential gas producers, although none was put on production. Three pool dry holes and 12 unsuccessful wildcats were drilled.

The Fishhook gas pool has the largest area of any gas pool in Illinois except the abandoned Pittsfield gas pool. The gas is in a shallow Silurian lime, and the volume is small. Prospects for marketing the gas are not encouraging, but the St. Peter sand has been tested, and it is possible that the pool may prove to be satisfactory for storing gas.

#### RANDOLPH COUNTY

Six wells were drilled in Randolph County in 1957—an oil well in the Baldwin pool, 2 dry holes in pools, and 3 wildcats. Although 3 Silurian oil wells have been completed in the Baldwin pool, it produced less than 1000 barrels of oil in 1957, bringing its total production up to 5000 barrels.

Almost all of the oil in Randolph County has come from one pool, Tilden, which produced 182,000 barrels in 1957 and should pass the 2,000,000 barrel mark by January 1958.

#### RICHLAND COUNTY

Richland County well completions for 1957 totalled only 41, as compared with 77 the previous year. The 41 wells included 21 producing wells, 13 dry holes in pools, and 7 wildcats within two miles of production. There were no wildcats far. Most of the new producing wells were in the Clay City Consolidated pool.

Most of the oil produced in Richland County comes from the Clay City Consolidated pool. Other pools in the county produced 459,000 barrels of oil in 1957. All pools except Dundas East had declines in production for the year. Total estimated production for Richland County for 1957 is 2,250,000 barrels of oil.

#### SALINE COUNTY

Drilling has fallen off rapidly in Saline County since the Eldorado "boom" ended. During 1955, at the height of drilling, 355 wells were completed, but in 1957 the number dropped to 75, only 27 of which, or about a third, were producers; 21 were pool dry holes and 27 were wildcats.

One new oil pool was discovered in Saline County in 1957. At the end of the year Grayson had two oil wells completed and had produced 6,000 barrels of oil from the Cypress and McClosky.

Raleigh South is the only Saline County pool to show an appreciable increase in production. Ten new Aux Vases oil wells were added to the pool in 1957, increasing its production from 117,000 barrels in 1956 to 186,000 barrels in 1957.

Harco, Harco East and Harrisburg pools dropped off to about a third of their 1956 production, Eldorado Consolidated and Dale Consolidated to about half and Raleigh to about two thirds. Annual production for the county, which reached 4,099,000 barrels in 1955 at the height of the Eldorado Consolidated development, was 1,273,000 barrels in 1957.

#### SANGAMON COUNTY

In 1957, 26 wells were drilled in Sangamon County, 25 of which were dry holes. The only successful completion was a wildcat which discovered the Roby West pool.

The discovery well, producing from the Hardin Sandstone, marketed no pipeline oil by the end of the year.

Six of the 25 dry holes were in pools, and the other 19 were wildcats.

One Sangamon County pool (Glenarm) was abandoned in 1957, after producing less than 1,000 barrels of oil. The 3 active pools produced a total of 20,000 barrels of oil in 1957, or one-half as much as in 1956. Total production for the county is 119,000 barrels, half of it in 1955, the first year of commercial production.

Exploration results have been discouraging in Sangamon County. The only pools discovered have been close to the Christian County line. Only 12 producing wells have been drilled, and production has declined rapidly.

#### SHELBY COUNTY

Results of drilling in Shelby County in 1957 were unusually successful. Five of the 26 wells drilled were producers, as compared to only one out of 18 in 1956. There were no discoveries, extensions, or new pays. The Stewardson pool had 4 new Aux Vases wells and the Clarksburg pool 1 Bethel well.

The 21 dry holes included 3 in pools, 5 wildcats near, and 13 wildcats far.

Shelby is one of the few counties in which production increased in 1957. As a result of its 4 new wells, the Stewardson pool increased its annual production 15,000 barrels, about equal to the county increase to 35,000 (in 1957) from 21,000 (in 1956). A small increase in production in the Clarksburg pool compensated for the losses in the Lakewood and Shelbyville Consolidated pools.

#### ST. CLAIR COUNTY

St. Clair County had 16 wells drilled in 1957. One was completed as an oil well in the Freeburg South gas pool, 4 as gas wells, 3 as dry holes in pools, and 8 as wildcats. One old well was worked over to produce gas, so the Freeburg South gas pool had 6 gas wells at the end of 1957. It is probable that this pool will be tested for its possibilities for gas storage.

The only oil production in St. Clair County is from the Dupo pool which produced 10,000 barrels in 1957.

#### WABASH COUNTY

Wabash County probably has a higher percentage of its area in oil production than any other county in Illinois. In 1957, 109 wells were drilled in the county, only 10 of which were wildcats, all of them less than two miles from production. A total of 40 new oil wells was drilled (most of them in Gards Point Consolidated, Allendale, New Harmony Consolidated and Browns East pools) and 59 dry holes in pools. In 1956 Wabash County was the only county in the southeastern part of the state with increased drilling. In 1957 the decrease in drilling for the county was at about the same rate as for the state.

Production for Wabash County for 1957 was about 3,135,000 barrels (estimated in part). This is a decrease of about 200,000 barrels from the previous year. Most of the pools in the county showed decreased production. Most notable increases were in Gards Point Consolidated, where production increased to 215,000 barrels from 84,000 in 1956, and Browns East, where production increased to 96,000 barrels from 65,000. About half of the new producers drilled during the year in Wabash County were located in these two pools.

#### WASHINGTON COUNTY

Decreases in drilling and production in 1957 in Washington County were about equal percentagewise to those for the state as a whole. The number of completions dropped from 135 in 1956 to 85 in 1957.

One new pool, New Memphis East, was discovered in 1957. At the end of the year the pool consisted of one well producing from the Devonian; no pipeline runs had yet been reported. Of the 85 wells completed, 30 were producers, including 12 in Dubois Consolidated pool, 5 each in McKinley and Cordes, 3 each in Irvington and Ashley, and 1 each in Dubois Central, Richview, and New Memphis East (the list includes one former dry hole reworked to producer). All produce from the Cypress

or Bethel sands in the Mississippian, the Devonian-Silurian, or the Trenton.

The 55 dry holes drilled during 1957 included 20 in pools, 26 wildcats near, and 9 wildcats far.

All of the pools except McKinley had decreases in production for the year. McKinley production increased from 7,000 in 1956 to 81,000 in 1957. Drops in the other pools brought the county total from 1,159,000 barrels for 1956 to 897,000 barrels in 1957.

#### WAYNE COUNTY

Drilling held up better in Wayne County than in most of the biggest oil producing counties in 1957. Wayne ranked second only to White County in total number of wells drilled (174) and second only to Lawrence County in number of producing wells (90) (White County had a low percentage of successful wells). In addition to 90 producing wells Wayne County had 59 dry holes in pools and 25 wildcats less than two miles from production. There were no far wildcats.

Wayne County ranked fourth in production for the year in the state with a decrease of about 2,500,000 barrels of oil. Production for the pools exclusive of the Clay City Consolidated pool was 2,351,000 barrels of oil. Including the Clay City Consolidated pool, production for the county was estimated at 5,351,000 barrels.

#### WHITE COUNTY

White County ranked first in Illinois in number of wells drilled during 1957 when 187 wells were completed. Completions had reached a high level of 478 in 1955, dropped to 262 in 1956. Producing wells made up about 60 percent of all completions in 1955, but dropped to 40 percent in 1957.

Wells drilled in 1957 in White County included 81 producers, 80 dry holes in pools, 25 wildcats within two miles of production, and one wildcat more than two miles from production.

Production in White County dropped from 9,055,000 barrels in 1956 to 7,819,000 barrels in 1957 (these figures are estimated

in part). During recent years White County has frequently ranked first in both drilling and production. In 1957 the waterflood operations in the Loudon pool resulted in Fayette County production greatly exceeding that of White County.

#### WILLIAMSON COUNTY

The first commercial oil production in Williamson County was discovered in 1957. The Marion pool, discovered in 1950, consisted of a single well which did not pay off.

Four of the 16 new pools discovered in Illinois in 1957 were in Williamson County, all in the northern part, within five miles of Franklin or Saline County. The first discovery was the Clifford pool in January. Only one producing well was completed during the year. It produced about 4,000 barrels from three pays, the Aux Vases, Rosiclare, and McClosky.

Corinth North, the second 1957 Williamson County pool, was discovered in February. It consists of 1 Aux Vases well which produced about 2000 barrels during the year.

Corinth East, a 1-well McClosky pool, was discovered in April. It made 6000 barrels for the year.

Corinth was the best of the Williamson County new pools and also one of the best in the state for 1957. Discovered in June, 7 producing wells had been completed by December 31. Production amounting to 52,000 barrels had been taken from two pays, the Aux Vases and Rosiclare.

A total of 44 wells were drilled in Williamson County in 1957 as compared with 81 in the preceding 20 years. In addition to the 10 producing wells in the four pools discussed above, there were 9 pool dry holes, 8 unsuccessful wildcats less than two miles from production and 17 more than two miles.

Production for the year was about 63,000 barrels.

Although results of drilling in Williamson County in 1957 can be considered only as fair, they were encouraging enough so that more than normal exploratory drilling will probably continue in 1958.

## OTHER COUNTIES

Seventeen counties had only dry holes completed during 1957. Three of them have had production and are discussed on preceding pages (Hancock, Jackson, and Morgan counties).

The 14 counties with no production and no successful completions in 1957 include

Brown and Ford counties with 6 wildcats each, Champaign with 4, Pope and Schuyler with 3 each, and Alexander with 2. One well was completed in each of the remaining 8 counties: Bureau, DeWitt, Johnson, Kankakee, LaSalle, Mercer, Piatt, and Tazewell.

## Footnotes to Tables 11 and 12, p. 40-70.

- <sup>a</sup> Cam, Cambrian; Ord, Ordovician; Sil, Silurian; Dev, Devonian; Mis, Mississippian; Pen, Pennsylvanian.
- <sup>b</sup> L, limestone; LS, sandy limestone; OL, oolitic limestone; D, dolomite; DS, sandy dolomite; S, sandstone.
- <sup>c</sup> A, anticlinal; AC, anticline with accumulation due to change in character of rock; AF, anticline with faulting as an important factor; Af, anticline with faulting as a minor factor; AL, anticline-lens; AM, accumulation due to both anticlinal and monocline structures; D, dome; H, strata horizontal or nearly horizontal; MC, monocline with accumulation due to change in character of rock; MF, monocline-fault; ML, monocline-lens; MU, monocline-unconformity; R, reef.
- <sup>x</sup> Not determinable.
- <sup>1</sup> Producing from 2 or more pays.  
Abandoned 1945; revived 1950.
- <sup>2</sup> Total of lines, 2, 8, 12, 13, 18, 25, 31 and 36.
- <sup>4</sup> Includes Allison-Weger, Birds, Chapman, Flat Rock, Hardinsville, Kibbe, New Hebron, Oblong, Parker, Robinson, and Swearingen Gas.
- <sup>5</sup> Pool also listed in Table 12.
- <sup>6</sup> Pool also listed in Table 11.
- <sup>7</sup> Total of lines 57 and 68.
- <sup>8</sup> Total of lines 1, 37, 38, 69, 70.
- <sup>9</sup> Abandoned 1943; revived (oil) 1956; abandoned 1957.
- <sup>10</sup> Reef structure.
- <sup>11</sup> Abandoned 1925; revived 1942.
- <sup>12</sup> Anticlinal structure with change in character of rock.
- <sup>13</sup> Anticline lens.
- <sup>14</sup> Abandoned 1921.
- <sup>15</sup> Abandoned 1933; revived 1949.
- <sup>16</sup> Abandoned 1950.
- <sup>17</sup> Abandoned 1935.
- <sup>18</sup> Abandoned 1923; revived 1957.
- <sup>19</sup> Abandoned 1939.
- <sup>20</sup> Abandoned 1904; revived 1942.
- <sup>21</sup> Gas not used until 1905; oil abandoned 1930; oil revived 1957.
- <sup>22</sup> Abandoned 1934.
- <sup>23</sup> Abandoned 1900.
- <sup>24</sup> Abandoned 1919.
- <sup>25</sup> Abandoned 1930; revived 1939; converted in part to gas storage 1951.
- <sup>26</sup> Total of lines.
- <sup>27</sup> Total of lines.
- <sup>28</sup> Has produced in multiple pay or work-over wells only. No original single completions.
- <sup>29</sup> Abandoned 1953.
- <sup>30</sup> Abandoned 1953.
- <sup>31</sup> Abandoned 1954.
- <sup>32</sup> Abandoned 1957.
- <sup>33</sup> Abandoned 1954.
- <sup>34</sup> Abandoned 1946.
- <sup>35</sup> Abandoned 1950.
- <sup>36</sup> Abandoned 1956.
- <sup>37</sup> Abandoned 1955.
- <sup>38</sup> Abandoned 1954.
- <sup>39</sup> Abandoned 1952.
- <sup>40</sup> Abandoned 1952.
- <sup>41</sup> Abandoned 1953.
- <sup>42</sup> Abandoned 1954.
- <sup>43</sup> Abandoned 1953.
- <sup>44</sup> Abandoned 1949; revived 1952.
- <sup>45</sup> Abandoned 1948.
- <sup>46</sup> Abandoned 1951; revived and consolidated with North City 1953.
- <sup>47</sup> Includes Concord North.
- <sup>48</sup> Includes Cooks Mills North, Cooks Mills East and Cooks Mills Gas.
- <sup>49</sup> Abandoned 1951.
- <sup>50</sup> Abandoned 1952; revived 1956.
- <sup>51</sup> Abandoned 1953; revived 1956.
- <sup>52</sup> Includes Cantrell Consolidated, Flannigan, Rural Hill West, and West End.
- <sup>53</sup> Abandoned 1955.
- <sup>54</sup> Abandoned 1946.
- <sup>55</sup> Includes Dubois West.
- <sup>56</sup> Abandoned 1951.
- <sup>57</sup> Includes Eldorado Central and Eldorado North.
- <sup>58</sup> Abandoned 1940.
- <sup>59</sup> Abandoned 1943; revived and abandoned 1951; revived 1954.
- <sup>60</sup> Abandoned 1952; revived 1953.
- <sup>61</sup> Abandoned 1957.
- <sup>62</sup> Abandoned 1956.
- <sup>63</sup> Abandoned 1951; revived 1952.
- <sup>64</sup> Abandoned 1949; revived 1953.
- <sup>65</sup> Abandoned 1951.
- <sup>66</sup> Abandoned 1952; revived 1955.
- <sup>67</sup> Abandoned 1952.
- <sup>68</sup> Abandoned 1957.
- <sup>69</sup> Includes Gards Point North.
- <sup>70</sup> Abandoned 1950; revived 1955.
- <sup>71</sup> Abandoned 1957.
- <sup>72</sup> Abandoned 1957.
- <sup>73</sup> Abandoned 1956.
- <sup>74</sup> Includes Concord South Consolidated.
- <sup>75</sup> Abandoned 1952.
- <sup>76</sup> Abandoned 1950.
- <sup>77</sup> Abandoned 1944.
- <sup>78</sup> Abandoned 1945; revived 1951.
- <sup>79</sup> Abandoned 1957.
- <sup>80</sup> Abandoned 1950.
- <sup>81</sup> Abandoned 1954.
- <sup>82</sup> Abandoned 1946; revived 1954.
- <sup>83</sup> Abandoned 1945; revived 1950.
- <sup>84</sup> Abandoned 1957.
- <sup>85</sup> Includes Mason and Mason South.
- <sup>86</sup> Abandoned 1945.
- <sup>87</sup> Abandoned 1947.
- <sup>88</sup> Abandoned 1946.
- <sup>89</sup> Abandoned 1952.
- <sup>90</sup> Abandoned 1954.
- <sup>91</sup> Abandoned 1956.
- <sup>92</sup> Abandoned 1950.
- <sup>93</sup> Abandoned 1941.
- <sup>94</sup> Abandoned 1951.
- <sup>95</sup> Abandoned 1953.
- <sup>96</sup> Abandoned 1947.
- <sup>97</sup> Abandoned 1952; revived 1955.
- <sup>98</sup> Includes Maunie West.
- <sup>99</sup> Includes Maunie.
- <sup>100</sup> Abandoned 1950.
- <sup>101</sup> Abandoned 1952.
- <sup>102</sup> Abandoned 1956.
- <sup>103</sup> Illinois portion only.
- <sup>104</sup> Abandoned 1957.
- <sup>105</sup> Abandoned 1948; revived 1952; abandoned 1954; revived 1956.
- <sup>106</sup> Abandoned 1952; revived 1956.
- <sup>107</sup> Abandoned 1948.
- <sup>108</sup> Abandoned 1953.
- <sup>109</sup> Abandoned 1949.
- <sup>110</sup> Abandoned 1954.
- <sup>111</sup> Abandoned 1957.
- <sup>112</sup> Abandoned 1957.
- <sup>113</sup> Abandoned 1951.
- <sup>114</sup> Abandoned 1954.
- <sup>115</sup> Abandoned 1946; revived and abandoned 1956.
- <sup>116</sup> Abandoned 1942.
- <sup>117</sup> Abandoned 1951; revived 1954.
- <sup>118</sup> Includes Stokes-Brownsville, Iron, Norris City and Gossett.
- <sup>119</sup> Abandoned 1950; revived 1956.
- <sup>120</sup> Abandoned 1957.
- <sup>121</sup> Abandoned 1957.
- <sup>122</sup> Abandoned 1951.
- <sup>123</sup> Abandoned 1952; revived 1955; abandoned 1956.
- <sup>124</sup> Abandoned 1949; revived 1950; abandoned 1951; revived 1955.
- <sup>125</sup> Abandoned 1952.
- <sup>126</sup> Abandoned 1956.
- <sup>127</sup> Abandoned 1947.
- <sup>128</sup> Abandoned 1954.
- <sup>129</sup> Abandoned 1950; revived 1955.
- <sup>130</sup> Abandoned 1953; revived 1955.
- <sup>131</sup> Includes Shelbyville East.
- <sup>132</sup> Includes Sorento South.
- <sup>133</sup> Abandoned 1956.
- <sup>134</sup> Abandoned 1950.
- <sup>135</sup> Includes Epworth Consolidated.
- <sup>136</sup> Abandoned 1950.
- <sup>137</sup> Abandoned 1956.
- <sup>138</sup> Abandoned 1947.
- <sup>139</sup> Abandoned 1947; revived 1953; abandoned 1954.
- <sup>140</sup> Abandoned 1955.
- <sup>141</sup> Abandoned 1957.
- <sup>142</sup> Abandoned 1956.
- <sup>143</sup> Abandoned 1956.
- <sup>144</sup> Abandoned 1952; no gas marketed.





# OIL PRODUCTION

|     |  |      |       |     |         |         |                        |          |     |     |                 |
|-----|--|------|-------|-----|---------|---------|------------------------|----------|-----|-----|-----------------|
| 48  | x  | x    | x     | x   | x       | x       | 950                    | 25 9,326 | 54  | x   | ML              |
| 49  | 0  | x    | x     | x   | x       | x       | 1,250                  | x 27     | 2   | x   | ML              |
| 50  | 0  | x    | x     | x   | x       | x       | 1,480                  | 15 34    | 2   | x   | ML              |
| 51  | 0  | x    | x     | x   | x       | x       | 1,280                  | 30 0     | 0   | 0   | ML              |
| 52  | 0  | x    | x     | x   | x       | x       | 1,400                  | 18 95    | 8   | x   | ML              |
| 53  | 0  | x    | x     | x   | x       | x       | 1,430                  | 15 43    | 8   | x   | ML              |
| 54  | 0  | x    | x     | x   | x       | x       | 1,515                  | 6 1      | 1   | 0   | MC              |
| 55  | 0  | x    | x     | x   | x       | x       | 1,400                  | x 112    | 0   | x   | MC              |
| 56  | 0  | x    | x     | x   | x       | x       | 1,515                  | 5 12     | 0   | 0   | MC              |
| 57  | 0  | x    | x     | x   | x       | x       | 2,795                  | 11 7     | 9   | 0   | MC              |
| 58  |  |      |       |     |         |         |                        |          |     |     |                 |
| 59  | Lawrence: Crawford                               | 1906 |       |     |         |         |                        | 5,018    | 85  | 62  | St. Peter       |
| 60  |  |      | x     | x   | x       | x       | 290                    | x 11     | 0   | 0   | A               |
| 61  |  |      | x     | x   | x       | x       | 450                    | x 1      | 0   | 0   | A               |
| 62  |  |      | x     | x   | x       | x       | 800                    | 40 1,261 | 1   | x   | A               |
| 63  |  |      | x     | x   | x       | x       | 950                    | 13 14    | 9   | x   | A               |
| 64  |  |      | x     | x   | x       | x       | 1,250                  | 15 511   | 1   | x   | A               |
| 65  |  |      | x     | x   | x       | x       | 1,410                  | 10 2     | 1   | x   | A               |
| 66  |  |      | x     | x   | x       | x       | 1,570                  | 10 1     | 0   | x   | A               |
| 67  |  |      | x     | x   | x       | x       | 1,370                  | 15 246   | 0   | x   | A               |
| 68  |  |      | x     | x   | x       | x       |                        |          |     |     | A *             |
| 69  |  |      | x     | x   | x       | x       | 1,400                  | 30 3,158 | 26  | x   | A               |
| 70  |  |      | x     | x   | x       | x       | 1,600                  | 8 0      | 0   | x   | A               |
| 71  |  |      | x     | x   | x       | x       | 1,650                  | 20 882   | 25  | x   | A               |
| 72  |  |      | x     | x   | x       | x       | 1,995                  | 7 5      | 0   | 0   | A               |
| 73  |  |      | x     | x   | x       | x       | 1,775                  | 8 16     | 9   | x   | A               |
| 74  |  |      | x     | x   | x       | x       | 1,750                  | 8 3      | 3   | x   | A               |
| 75  |  |      | x     | x   | x       | x       | 1,860                  | 4 21     | 2   | x   | A               |
| 76  |  |      | x     | x   | x       | x       | 1,860                  | 10 1,020 | 5   | 0   | A               |
| 77  |  |      | x     | x   | x       | x       | 1,660                  | 10 3     | 0   | 0   | A               |
| 78  |  |      | x     | x   | x       | x       | 1,955                  | 2 54     | 1   | 0   | A               |
| 79  | St. Francisville: Lawrence                       | x    | x     | x   | x       | x       | 1,845                  | 6 82     | 5   | 2   | 44 ML Mis       |
| 80  | Lawrence County Division?                        | 1912 | 4,498 | x   | 0       | x       |                        | 5,100    | 90  | 64  | St. Peter       |
| 81  | Allendale: Wabash, Lawrence                      |      | 630   | x   | 0       | x       |                        | 923      | 10  | 32  | Mis             |
| 82  |  |      | 0     | x   | 0       | x       |                        | 30       | 0   | 0   | AM              |
| 83  |  |      | 0     | x   | 0       | x       | 660                    | 1 070    | x   | 0   | AM              |
| 84  |  |      | 0     | x   | 0       | x       | 1,070                  | 12 x     | 1   | x   | AM              |
| 85  |  |      | 0     | x   | 0       | x       | 1,450                  | 15 617   | 2   | x   | AM              |
| 86  |  |      | 0     | x   | 0       | x       | 1,540                  | 20 15    | 0   | x   | AM              |
| 87  |  |      | 0     | x   | 0       | x       | 1,540                  | 15 24    | 0   | x   | AM              |
| 88  |  |      | 0     | x   | 0       | x       | 1,780                  | 20 12    | 0   | x   | AM              |
| 89  |  |      | 0     | x   | 0       | x       | 1,780                  | 10 1     | 0   | x   | AM              |
| 90  |  |      | 0     | x   | 0       | x       | 2,020                  | 10 59    | 0   | x   | AM              |
| 91  |  |      | 0     | x   | 0       | x       | 2,280                  | 12 83    | 0   | x   | AM              |
| 92  |  |      | 0     | x   | 0       | x       | 2,300                  | 12 19    | 0   | x   | AM              |
| 93  |  |      | 0     | x   | 0       | x       | 2,300                  | 12 19    | 0   | x   | AM              |
| 94  |  |      | 0     | x   | 0       | x       | 2,300                  | 8 14+    | 0   | x   | AM              |
| 95  |  |      | 0     | x   | 0       | x       | 2,300                  | 8 14+    | 0   | x   | AM              |
| 96  |  |      | 0     | x   | 0       | x       |                        |          | 1   | 0   | AM              |
| 97  | Total Southeastern Fields                        |      | 9,694 | x   | 530,864 | 157,600 |                        | 20,881   | 216 | 296 | 8,635           |
| 98  | Ava-Campbell Hill: Jackson <sup>5, 9</sup>       | 1916 | 0     | x   | 0       | x       |                        | 18 86    | 0   | 1   | 0               |
| 99  | Bartleso: Clinton                                | 1936 | 251   | 840 | 3,145   | 600     |                        | 76 0     | 8   | 31  | A               |
| 100 |  |      | x     | 840 | x       | 350     | Carlyle (Cypress): Mis | 57 0     | 3   | 0   | D               |
| 101 |  |      | 0     | x   | x       | 250     | Shurran: Sil           | 27 0     | 5   | 0   | R <sup>10</sup> |
| 102 | Brown, Junction City, Langewisch-Kuester: Marion | 1910 | 5     | 0   | x       | 340     |                        | 34 0     | 1   | 6   | M Dev           |
| 103 |  |      | x     | x   | x       | x       | Dykestra: Pen          | 20 x     | 0   | 1   | MF              |
| 104 |  |      | x     | x   | x       | x       | Wilson: Pen            | 7 x      | 0   | 1   | MF              |
| 97  | Total Southeastern Fields                        |      | 9,694 | x   | 530,864 | 157,600 |                        | 20,881   | 216 | 296 | 8,635           |
| 98  | Ava-Campbell Hill: Jackson <sup>5, 9</sup>       | 1916 | 0     | x   | 0       | x       |                        | 18 86    | 0   | 1   | 0               |
| 99  | Bartleso: Clinton                                | 1936 | 251   | 840 | 3,145   | 600     |                        | 76 0     | 8   | 31  | A               |
| 100 |  |      | x     | 840 | x       | 350     | Carlyle (Cypress): Mis | 57 0     | 3   | 0   | D               |
| 101 |  |      | 0     | x   | x       | 250     | Shurran: Sil           | 27 0     | 5   | 0   | R <sup>10</sup> |
| 102 | Brown, Junction City, Langewisch-Kuester: Marion | 1910 | 5     | 0   | x       | 340     |                        | 34 0     | 1   | 6   | M Dev           |
| 103 |  |      | x     | x   | x       | x       | Dykestra: Pen          | 20 x     | 0   | 1   | MF              |
| 104 |  |      | x     | x   | x       | x       | Wilson: Pen            | 7 x      | 0   | 1   | MF              |

|     |  |      |   |       |   |         |         |                              |        |       |     |       |     |    |         |                  |       |
|-----|--|------|---|-------|---|---------|---------|------------------------------|--------|-------|-----|-------|-----|----|---------|------------------|-------|
| 105 | Carlinville: Macoupin <sup>11</sup>                                  | 1909 | 0 | x     | 0 | 0       | x       | 1,660                        | 15     | x     | 0   | 0     | 0   | 0  | 3       | N                | 1,380 |
| 106 | Carlinville: Clinton   | 1911 | 0 | x     | 0 | 3,876   | 0       | 380                          | x      | 8     | 1   | 0     | 0   | 0  | 33      | A                | 2,177 |
| 107 | Carlyle: Clinton   |      | 0 | x     | 0 |         | 0       | 900                          | 10     | 189   | 0   | 0     | 0   | 0  | 33      | AC <sup>12</sup> |       |
| 108 | Carlyle: Clinton   |      | 0 | x     | 0 |         | 0       | 1,035                        | 20     | 180   | 1   | 0     | 0   | 0  | 0       | AL <sup>13</sup> |       |
| 109 | Carlyle: (Cypress): Mis  |      | 0 | x     | 0 |         | 0       |                              | 20     | 1     | 0   | 0     | 0   | 0  | 0       | ML               | 2,177 |
| 110 | Collinsville: Madison <sup>14</sup>                                  | 1909 | 0 | 0     | 0 | 1       | 40      | 1,305                        | 20     | 6     | 0   | 0     | 0   | 0  | 0       | ML               |       |
| 111 | Colmar-Plymouth: Hancock-<br>McDonough                               |      | 0 | 65    | 0 | 4,145   | 2,500   | 450                          | 21     | 497   | 0   | 1     | 199 | AL | AL      | St. Peter        | 815   |
| 112 | Colmar-Plymouth: Hancock-<br>McDonough                               |      | 0 | 10    | 0 | 2,836   | 1,000   | 700                          | 320    | 0     | 0   | 0     | 30  | A  | Ord     | St. Peter        | 1,800 |
| 113 | Drupo: St. Clair   | 1914 | 0 | 0     | 0 | 0       | 300     | 950                          | 7      | 14    | 0   | 0     | 0   | 0  | 0       | ML               | 3,290 |
| 114 | Frogtown: Clinton <sup>15</sup>                                      | 1918 | 0 | x     | 0 |         | 45      | 650                          | 5      | 23    | 1   | 0     | 2   | T  | Ord     | Trenton          | 1,390 |
| 115 | Gillespie-Wyen: Macoupin   | 1915 | 0 | x     | 0 |         | 1       | 2,240                        | x      | 0     | 0   | 0     | 0   | 0  | 0       | A                | 3,184 |
| 116 | Greenville: Bond <sup>16</sup>                                       | 1957 | 0 | x     | 0 |         | 60      | 330                          | 5      | 8     | 0   | 0     | 0   | 0  | 0       | ML               | 1,390 |
| 117 | Jacksonville Gas: Morgans <sup>17</sup>                              | 1910 | 0 | 0     | 0 | 24      | 100     | 660                          | x      | 18    | 0   | 0     | 0   | 0  | 0       | D                | 3,000 |
| 118 | Jacksonville Gas: Montgomery <sup>18</sup>                           | 1889 | 0 | 25    | 0 | 5,790   | 500     | 1,400                        | 10     | 153   | 0   | 1     | 17  | D  | D       | St. Peter        | 3,000 |
| 119 | Sandoval: Marton   | 1909 | 0 | 0     | 0 | 2,702   | 460     | 1,540                        | 20     | 123   | 0   | x     | 0   | 0  | 0       | D                | 5,023 |
| 120 |  |      | 0 | 25    | 0 | 3,085   | 390     | 2,920                        | 9      | 28    | 0   | 0     | 0   | 0  | 0       | R                |       |
| 121 |  |      | 0 | 0     | 0 |         | 20      | 850                          | 7      | 2     | 0   | 0     | 0   | 0  | 0       | D                | 3,130 |
| 122 |  |      | 0 | 0     | 0 |         | 20      | 850                          | 7      | 2     | 0   | 0     | 0   | 0  | 0       | D                | 3,130 |
| 123 | Sparta: Randolphs <sup>23</sup>                                      | 1888 | 0 | 0     | 0 | x       | 20      | Cypress: Mis                 | S      | 850   | 7   | 2     | 0   | 0  | 0       | D                | 3,130 |
| 124 | Sparta: Randolphs <sup>23</sup>                                      | 1888 | 0 | 0     | 0 | x       | 20      | Cypress: Mis                 | S      | 850   | 7   | 2     | 0   | 0  | 0       | D                | 3,130 |
| 125 | Wamac: Marion, Clinton, Wash-<br>ington                              | 1921 | 5 | 10    | 8 | 615     | 250     | 720                          | 20     | 109   | 1   | 4     | 7   | DF | DF      | Mis              | 1,760 |
| 126 | Waterloo: Monroe <sup>25</sup>                                       | 1920 | 0 | 1     | 0 | 238     | 230     | 410                          | 50     | 41    | 0   | 0     | 3   | A  | Pre-Cam | 2,768            |       |
| 127 | Total of fields discovered prior to<br>January 1, 1937 <sup>26</sup> |      | x | 9,898 | x | 551,848 | 164,785 |                              | 22,394 | 219   | 312 | 8,967 | 4   | M  | Mis     | 2,953            |       |
| 128 | Ab Lake: Gallatin  | 1947 | 0 | 5     | 0 | 33      | 100     | 805                          | 10     | 2     | 0   | 0     | 0   | 0  | 0       | M                | 2,953 |
| 129 |  |      | 0 | 0     | 0 | 0       | 20      | Pennsylvanian: Pen           | S      | 805   | 10  | 2     | 0   | 0  | 0       | M                |       |
| 130 |  |      | 0 | 0     | 0 | 0       | 10      | Palestine: Mis               | S      | 1,835 | 5   | 1     | 0   | 0  | 0       | MF               |       |
| 131 |  |      | 0 | 0     | 0 | 0       | 40      | Waltersburg: Mis             | S      | 2,000 | 10  | 2     | 0   | 0  | 0       | M                |       |
| 132 |  |      | 0 | 0     | 0 | x       | 40      | Reynold: Mis                 | L      | 2,735 | 8   | 2     | 0   | 0  | 0       | MF               |       |
| 133 |  |      | 0 | 0     | 0 | x       | 40      | Aux Vases: Mis <sup>28</sup> | L      | 2,770 | 9   | 0     | 0   | 0  | 0       | MF               |       |
| 134 | Ab Lake West: Gallatin   | 1950 | 0 | 51    | 0 | 96      | 230     | 725                          | 10     | 16    | 2   | 1     | 12  | M  | Mis     | 2,964            |       |
| 135 |  |      | 0 | 0     | 0 | 0       | 10      | Pennsylvanian: Pen           | S      | 725   | 10  | 1     | 0   | 0  | 0       | ML               |       |
| 136 |  |      | 0 | x     | 0 | x       | 80      | Waltersburg: Mis             | S      | 2,020 | 20  | 4     | 1   | 0  | 0       | ML               |       |
| 137 |  |      | 0 | x     | 0 | x       | 10      | Cypress: Mis <sup>28</sup>   | S      | 2,425 | 9   | 0     | 0   | 0  | 0       | ML               |       |
| 138 |  |      | 0 | x     | 0 | x       | 140     | Aux Vases: Mis               | L      | 2,735 | 6   | 7     | 1   | 1  | 1       | ML               |       |
| 139 |  |      | 0 | 0     | 0 | 2.5     | 20      | McClosky: Mis                | L      | 2,830 | 2   | 1     | 0   | 0  | 0       | MC               |       |
| 140 |  |      | 0 | 0     | 0 |         |         |                              | L      | 2,830 | 2   | 1     | 0   | 0  | 0       | MC               |       |
| 141 | Aden Consolidated: Wayne, Hamilton                                   | 1938 | x | 237   | x | 8,177   | 2,450   | 107                          | 7      | 0     | 0   | 0     | 87  | A  | Dev     | 5,395            |       |
| 142 |  |      | 0 | x     | x | x       | 1,330   | Aux Vases: Mis               | S      | 3,200 | 10  | 7     | 0   | 0  | A       | A                |       |
| 143 |  |      | 0 | x     | x | x       | 140     | Ohara: Mis <sup>28</sup>     | L      | 3,290 | 7   | 0     | 0   | 0  | A       | A                |       |
| 144 |  |      | 0 | x     | x | x       | 100     | Rostclare: Mis               | LS     | 3,320 | 5   | 2     | 0   | 0  | AC      | AC               |       |
| 145 |  |      | 0 | x     | x | x       | 2,340   | McClosky: Mis                | L      | 3,350 | 4   | 7     | 4   | 0  | 0       | A                |       |
| 146 |  |      | 0 | x     | x | x       | 80      | Salem: Mis <sup>28</sup>     | L      | 3,735 | 16  | 0     | 0   | 0  | 0       | AC               |       |
| 147 |  |      | 0 | 38    | 0 | 541     | 400     | 3,245                        | 8      | 21    | 0   | 0     | 18  | A  | Mis     | 3,466            |       |
| 148 | Aden South: Hamilton   | 1945 | 0 | x     | 0 | 0       | 100     | Aux Vases: Mis               | S      | 3,245 | 8   | 2     | 0   | 0  | AL      | AL               |       |
| 149 |  |      | 0 | x     | 0 | 0       | 20      | Ohara: Mis <sup>28</sup>     | L      | 3,310 | 7   | 0     | 0   | 0  | AC      | AC               |       |
| 150 |  |      | 0 | x     | 0 | 0       | 160     | Rostclare: Mis               | LS     | 3,330 | 8   | 1     | 0   | 0  | AC      | AC               |       |
| 151 |  |      | 0 | x     | 0 | 0       | 340     | McClosky: Mis                | L      | 3,395 | 9   | 0     | 0   | 0  | 0       | AC               |       |
| 152 |  |      | 0 | x     | 0 | 0       |         |                              | L      | 3,395 | 9   | 0     | 0   | 0  | 0       | AC               |       |
| 153 | Akin: Franklin   | 1942 | 0 | 191   | 0 | 1,138   | 460     | 2,840                        | 10     | 37    | 8   | 0     | 36  | A  | Mis     | 3,515            |       |
| 154 |  |      | 0 | x     | 0 | x       | 180     | Cypress: Mis                 | S      | 2,840 | 10  | 11    | 0   | 0  | AL      | AL               |       |
| 155 |  |      | 0 | x     | 0 | x       | 300     | Aux Vases: Mis               | L      | 3,100 | 22  | 8     | 0   | 0  | AC      | AC               |       |
| 156 |  |      | 0 | x     | 0 | x       | 40      | Ohara: Mis                   | L      | 3,100 | 18  | 2     | 0   | 0  | AC      | AC               |       |
| 157 |  |      | 0 | x     | 0 | x       | 20      | McClosky: Mis <sup>28</sup>  | L      | 3,270 | 9   | 0     | 0   | 0  | 0       | AC               |       |
| 158 |  |      | 0 | x     | 0 | x       |         |                              | L      | 3,270 | 9   | 0     | 0   | 0  | 0       | AC               |       |
| 159 | Akin West: Franklin  | 1948 | 0 | 4     | 0 | 80      | 100     | 2,715                        | 8      | 6     | 0   | 0     | 4   | A  | Mis     | 3,435            |       |
| 160 |  |      | 0 | x     | 0 | 0       | 20      | Cypress: Mis                 | S      | 2,715 | 8   | 2     | 0   | 0  | AL      | AL               |       |
| 161 |  |      | 0 | x     | 0 | 0       |         |                              | S      | 2,715 | 8   | 2     | 0   | 0  | AL      | AL               |       |



TABLE 11.—(Continued)

| Line No. | Pool: County                             | Year of discovery | Oil production (M bbls.) |       |                | Total proved area (acres) | Producing formation    |                                 |                    | Number of wells     |                          |           | Deepest zone tested |      |                     |      |       |
|----------|--|-------------------|--------------------------|-------|----------------|---------------------------|------------------------|---------------------------------|--------------------|---------------------|--------------------------|-----------|---------------------|------|---------------------|------|-------|
|          |  |                   | During 1957              |       | To end of 1957 |                           | Name: Age <sup>a</sup> | Character <sup>b</sup>          | Depth to top (ft.) | Av. thickness (ft.) | Completed to end of 1957 | 1957      |                     | Name | Depth of hole (ft.) |      |       |
|          |  |                   | Secondary recovery       | Total |                |                           |                        |                                 |                    |                     |                          | Completed | Abandoned           |      |                     |      |       |
| 224      |  |                   | 0                        | x     | 0              | x                         | 280                    | Clear Creek: Dev                | L                  | 3,050               | 12                       | 13        | 0                   | 0    | A                   |      |       |
| 225      |  |                   | 0                        | x     | 0              | x                         | 20                     | Trenton: Ord <sup>3</sup>       | T                  | 4,095               | 5                        | 0         | 0                   | 0    | A                   |      |       |
| 226      |  |                   | 0                        | 45    | 0              | 444                       | 230                    | Bethel: Mis                     | S                  | 1,430               | 9                        | 1         | 0                   | 0    | AL                  | Dev  |       |
| 227      | Beaucoup South: Washington               | 1951              | 0                        | 7     | 15             | 189                       | 160                    | Bethel: Mis                     | S                  | 1,130               | 6                        | 22        | 0                   | 0    | 13 A                | Sil  |       |
| 228      | Beaver Creek: Bond, Clinton              | 1942              | 0                        | 0     | 0              | 1                         | 40                     | Bethel: Mis                     | S                  | 1,115               | 4                        | 16        | 0                   | 0    | 0                   | A    | Sil   |
| 229      | Beaver Creek North: Bonds                | 1949              | 7                        | 28    | 62             | 345                       | 440                    | Bethel: Mis                     | S                  | 1,005               | 20                       | 43        | 1                   | 0    | 0                   | 0    | Dev   |
| 230      | Beaver Creek South: Clinton, Bonds       | 1946              | 0                        | 28    | 0              | 345                       | 420                    | Cypress: Mis                    | S                  | 1,140               | 5                        | 42        | 1                   | 0    | 0                   | 28 A | Sil   |
| 231      |  |                   | 0                        | 31    | 0              | 637                       | 250                    | Cypress: Mis                    | S                  | 1,070               | 23                       | 1         | 0                   | 0    | 1 x                 | Sil  | 2,730 |
| 232      |  |                   | 0                        | x     | 0              | x                         | 20                     | Aux Vases: Mis                  | S                  | 3,250               | 8                        | 13        | 1                   | 0    | 10 A                | Dev  | 5,483 |
| 233      | Beckemeyer Gas: Clinton <sup>5</sup>     | 1956              | 0                        | 0     | 0              | 0                         | 240                    | McClosky: Mis                   | L                  | 3,420               | 6                        | 11        | 1                   | 0    | AC                  | AC   |       |
| 234      | Belle Prairie: Hamilton                  | 1940              | 0                        | 0     | 0              | 0                         | 200                    | McClosky: Mis                   | L                  | 3,085               | 6                        | 1         | 0                   | 0    | 3 AC                | Mis  | 4,200 |
| 235      |  |                   | 0                        | 2     | 0              | 68                        | 70                     | McClosky: Mis                   | L                  | 3,085               | 6                        | 5         | 0                   | 0    | 1 M                 | Mis  | 3,006 |
| 236      |  |                   | 0                        | 1     | 0              | 11                        | 10                     | Bethel: Mis                     | S                  | 2,650               | 7                        | 1         | 0                   | 1    | ML                  | ML   |       |
| 237      | Belle Rive: Jefferson                    | 1943              | 0                        | 1     | 0              | 57                        | 60                     | Ohara: Mis                      | L                  | 2,840               | 7                        | 3         | 0                   | 1    | MC                  | MC   |       |
| 238      | Bellmont: Wabash                         | 1951              | 0                        | 7     | 0              | 247                       | 500                    | Ohara: Mis                      | L                  | 2,840               | 7                        | 3         | 0                   | 1    | 13 A                | Mis  | 2,000 |
| 239      |  |                   | 0                        | x     | 0              | x                         | 40                     | Aux Vases: Mis                  | S                  | 1,805               | 20                       | 2         | 0                   | 0    | AL                  | AL   |       |
| 240      |  |                   | 0                        | x     | 0              | x                         | 480                    | Ste. Genevieve: Mis             | L                  | 1,850               | 7                        | 19        | 0                   | 0    | AC                  | AC   |       |
| 241      | Beman: Lawrence                          | 1942              | 0                        | 0     | 0              | 0                         | 100                    | Ste. Genevieve: Mis             | L                  | 1,850               | 7                        | 2         | 0                   | 0    | 2 A                 | Mis  | 1,907 |
| 242      |  |                   | 0                        | 2     | 0              | 106                       | 20                     | Aux Vases: Mis                  | S                  | 1,805               | 20                       | 5         | 0                   | 0    | AL                  | AL   |       |
| 243      |  |                   | 0                        | x     | 0              | x                         | 90                     | Ste. Genevieve: Mis             | L                  | 1,860               | 7                        | 3         | 0                   | 0    | AC                  | AC   |       |
| 244      | Beman East: Lawrence                     | 1947              | 0                        | 0     | 0              | 0                         | 20                     | McClosky: Mis                   | L                  | 3,240               | 8                        | 1         | 0                   | 0    | 0 MC                | Mis  | 3,420 |
| 245      |  |                   | 0                        | 772   | 13,077         | 33,480                    | 2,400                  | McClosky: Mis                   | L                  | 3,240               | 8                        | 243       | 0                   | 0    | 132 A               | Mis  | 3,205 |
| 246      | Bennington South: Edwards <sup>4</sup>   | 1944              | 0                        | 0     | 0              | 10                        | 20                     | McClosky: Mis                   | L                  | 3,240               | 8                        | 1         | 0                   | 0    | 0                   | AL   |       |
| 247      | 251 Benton: Franklin                     | 1941              | 755                      | 0     | 0              | 0                         | 20                     | Pennsylvanian: Pen <sup>3</sup> | S                  | 1,700               | 9                        | 0         | 0                   | 0    | 0                   | A    | 2,906 |
| 248      |  |                   | 755                      | 772   | 13,077         | 33,480                    | 2,400                  | Tar Springs: Mis                | S                  | 2,100               | 10                       | 243       | 0                   | 0    | 51 A                | Mis  |       |
| 249      |  |                   | 0                        | 86    | 0              | 1,891                     | 750                    | Cypress: Mis                    | S                  | 2,460               | 17                       | 60        | 0                   | 0    | 0                   | A    |       |
| 250      | Benton North: Franklin                   | 1941              | 0                        | x     | 0              | x                         | 130                    | Cypress: Mis                    | S                  | 2,460               | 17                       | 13        | 0                   | 0    | 0                   | A    |       |
| 251      |  |                   | 0                        | x     | 0              | x                         | 150                    | Part Creek: Mis                 | S                  | 2,595               | 9                        | 8         | 0                   | 0    | 0                   | A    |       |
| 252      |  |                   | 0                        | x     | 0              | x                         | 30                     | Bethel: Mis                     | S                  | 2,600               | 20                       | 3         | 0                   | 0    | 0                   | AL   |       |
| 253      |  |                   | 0                        | x     | 0              | x                         | 100                    | Aux Vases: Mis                  | S                  | 2,985               | 10                       | 3         | 0                   | 0    | 0                   | A    |       |
| 254      |  |                   | 0                        | x     | 0              | x                         | 220                    | Ohara: Mis                      | L                  | 2,730               | 8                        | 0         | 0                   | 0    | 0                   | A    |       |
| 255      |  |                   | 0                        | x     | 0              | x                         | 160                    | Rosiclare: Mis                  | L                  | 2,775               | 6                        | 4         | 0                   | 0    | 0                   | A    |       |
| 256      |  |                   | 0                        | x     | 0              | x                         | 360                    | McClosky: Mis                   | L                  | 2,800               | 10                       | 9         | 0                   | 0    | 0                   | A    |       |
| 257      |  |                   | 0                        | 10    | 0              | 927                       | 540                    | McClosky: Mis                   | L                  | 2,800               | 10                       | 14        | 0                   | 0    | 0                   | A    |       |
| 258      | Berryville Consolidated: Wabash, Edwards | 1943              | 0                        | x     | 0              | x                         | 120                    | Ohara: Mis                      | L                  | 2,900               | 6                        | 19        | 1                   | 0    | 5 M                 | Mis  | 3,125 |
| 259      |  |                   | 0                        | x     | 0              | x                         | 20                     | Rosiclare: Mis                  | L                  | 2,850               | 12                       | 5         | 1                   | 0    | MC                  | MC   |       |
| 260      |  |                   | 0                        | x     | 0              | x                         | 420                    | McClosky: Mis                   | L                  | 2,890               | 10                       | 12        | 0                   | 0    | MC                  | MC   |       |
| 261      |  |                   | 0                        | 5     | 0              | 81                        | 40                     | Ohara: Mis                      | L                  | 2,895               | 10                       | 0         | 0                   | 0    | 1 MC                | Mis  | 3,457 |
| 262      | Bessie: Franklin                         | 1943              | 0                        | 2     | 0              | 79                        | 130                    | Ohara: Mis                      | L                  | 2,895               | 10                       | 7         | 0                   | 0    | 2 M                 | Mis  | 2,999 |
| 263      | Bible Grove North: Effingham             | 1947              | 0                        | 1     | 0              | x                         | 50                     | Cypress: Mis                    | S                  | 2,535               | 7                        | 3         | 0                   | 0    | M                   | M    |       |

















TABLE 11.—(Continued)

| Line No. | Pool: County  | Year of discovery | Oil production (M bbls.) |       |                | Total proved area (acres) | Producing formation    |                                |                    |                     | Number of wells          |       |           | Deepest zone tested    |      |                     |           |                       |       |     |
|----------|---|-------------------|--------------------------|-------|----------------|---------------------------|------------------------|--------------------------------|--------------------|---------------------|--------------------------|-------|-----------|------------------------|------|---------------------|-----------|-----------------------|-------|-----|
|          |   |                   | During 1957              |       | To end of 1957 |                           | Name: Age <sup>a</sup> | Character <sup>b</sup>         | Depth to top (ft.) | Av. thickness (ft.) | Completed to end of 1957 | 1957  |           | Structure <sup>c</sup> | Name | Depth of hole (ft.) |           |                       |       |     |
|          |   |                   | Secondary                | Total | Secondary      |                           |                        |                                |                    |                     |                          | Total | Completed |                        |      |                     | Abandoned | Producing end of year |       |     |
| 683      |   |                   | 0                        | x     | 0              | x                         | 160                    | Aux Vases: Mis                 | T                  | 2,865               | 8                        | 13    | 0         | 0                      | 1    | x                   |           |                       |       |     |
| 684      |   |                   | 0                        | x     | 0              | x                         | 40                     | Ohara: Mis                     | S                  | 2,880               | 14                       | 2     | 2         | 0                      | 0    | x                   |           |                       |       |     |
| 685      | Harrisburg: Saline <sup>5</sup>                       | 1954              | 0                        | 0     | 0              | 0                         | 90                     | Waltersburg: Mis               | S                  | 2,020               | 14                       | 9     | 0         | 0                      | 1    | 6                   | Mis       | 2,930                 |       |     |
| 687      |   |                   | 0                        | 8     | 0              | 112.5                     | 10 Tar Springs: Mis    | S                              | 2,115              | 6                   | 1                        | 0     | 0         | 0                      | 1    | x                   |           |                       |       |     |
| 688      | Harrisburg South: Saline <sup>5</sup>                 | 1955              | 0                        | 0     | 0              | .5                        | 10 Cypress: Mis        | T                              | 2,300              | x                   | 1                        | 0     | 0         | 0                      | 1    | 0                   | Mis       | 2,352                 |       |     |
| 689      | Harrisown: Macon                                      | 1954              | 0                        | 0     | 0              | 0                         | 10 Silurian: Sil       | T                              | 2,050              | x                   | 3                        | 4     | 2         | 0                      | 0    | 3                   | MU Sil    | 2,080                 |       |     |
| 691      | Herald Consolidated: White, Gallatin <sup>5, 14</sup> | 1939              | 35                       | 659   | 94             | 9,400                     | 4,900                  | Pennsylvanian: Pen             | S                  | 1,060               | 10                       | 500   | 10        | 12                     | 406  | A                   | Mis       | 3,394                 |       |     |
| 692      |   |                   | 0                        | x     | 0              | x                         | 10                     | Pennsylvanian: Pen             | S                  | 1,500               | 15                       | 13    | 0         | 0                      | 0    | 0                   | AL        |                       |       |     |
| 693      |   |                   | 0                        | x     | 0              | x                         | 160                    | Pennsylvanian: Pen             | S                  | 1,750               | 18                       | 3     | 0         | 0                      | 0    | 0                   | AL        |                       |       |     |
| 694      |   |                   | 0                        | x     | 0              | x                         | 30                     | Degonia: Mis                   | S                  | 1,920               | 12                       | 3     | 0         | 0                      | 0    | 0                   | AL        |                       |       |     |
| 695      |   |                   | 0                        | x     | 0              | x                         | 20                     | Clare: Mis <sup>28</sup>       | S                  | 1,965               | 10                       | 0     | 0         | 0                      | 0    | 0                   | AL        |                       |       |     |
| 696      |   |                   | 0                        | x     | 0              | x                         | 10                     | Paestine: Mis                  | S                  | 1,940               | 20                       | 1     | 0         | 0                      | 0    | 0                   | AL        |                       |       |     |
| 697      |   |                   | 0                        | x     | 0              | x                         | 420                    | Waltersburg: Mis               | S                  | 2,240               | 10                       | 39    | 0         | 0                      | 0    | 0                   | A         |                       |       |     |
| 698      |   |                   | 0                        | x     | 0              | x                         | 440                    | Tar Springs: Mis               | S                  | 2,260               | 13                       | 35    | 1         | 1                      | 1    | A                   | A         |                       |       |     |
| 699      |   |                   | 0                        | x     | 0              | x                         | 1,480                  | Cypress: Mis                   | S                  | 2,660               | 14                       | 142   | 0         | 3                      | 0    | A                   | A         |                       |       |     |
| 700      |   |                   | 2                        | x     | 2              | x                         | 10                     | Paint Creek: Mis <sup>28</sup> | S                  | x                   | x                        | 0     | 0         | 0                      | 0    | AL                  |           |                       |       |     |
| 701      |   |                   | 0                        | x     | 0              | x                         | 210                    | Bethel: Mis                    | S                  | 2,790               | 11                       | 15    | 0         | 0                      | 0    | AL                  |           |                       |       |     |
| 702      |   |                   | 0                        | x     | 0              | x                         | 2,100                  | Aux Vases: Mis                 | S                  | 2,920               | 6                        | 204   | 7         | 6                      | 0    | AL                  |           |                       |       |     |
| 703      |   |                   | 6                        | x     | 6              | x                         | 140                    | Ohara: Mis                     | T                  | 2,965               | 6                        | 5     | 0         | 0                      | 0    | AC                  |           |                       |       |     |
| 704      |   |                   | 0                        | x     | 0              | x                         | 140                    | Kosciusko: Mis                 | L                  | 3,005               | 4                        | 3     | 0         | 0                      | 0    | AC                  |           |                       |       |     |
| 705      |   |                   | 0                        | x     | 0              | x                         | 420                    | McClosky: Mis                  | L                  | 3,010               | 10                       | 16    | 1         | 1                      | 1    | AC                  |           |                       |       |     |
| 706      |   |                   | 0                        | x     | 0              | x                         | 60                     | McClosky: Mis                  | L                  | 2,575               | 4                        | 3     | 0         | 0                      | 0    | MC                  | Dev       | 4,140                 |       |     |
| 708      | Hidalgo: Jasper <sup>7</sup>                          | 1940              | 0                        | 0     | 0              | 10                        | 40                     | Kosciusko: Mis                 | S                  | 2,655               | 12                       | 2     | 0         | 0                      | 0    | 1                   | x         | 2,776                 |       |     |
| 709      | Hidalg North: Cumberland                              | 1946              | 0                        | 1     | 0              | 13                        | 80                     | McClosky: Mis                  | L                  | 2,565               | 5                        | 2     | 0         | 0                      | 0    | 0                   | N         | Mis                   | 2,710 |     |
| 710      | Hill: Eflingham <sup>6</sup>                          | 1943              | 0                        | 0     | 0              | 41                        | 430                    | Cypress: Mis                   | S                  | 2,460               | 8                        | 23    | 0         | 0                      | 1    | 31                  | x         | 3,251                 |       |     |
| 711      | Hill East: Eflingham                                  | 1954              | 124                      | x     | 0              | 586                       | 250                    | Cypress: Mis                   | S                  | 2,650               | 10                       | 1     | 0         | 0                      | 0    | 0                   | x         |                       |       |     |
| 712      |   |                   | 0                        | x     | 0              | x                         | 10                     | Aux Vases: Mis                 | S                  | 2,660               | 5                        | 1     | 0         | 0                      | 0    | 0                   | x         |                       |       |     |
| 713      |   |                   | 0                        | x     | 0              | x                         | 160                    | McClosky: Mis                  | L                  | 2,700               | 7                        | 7     | 0         | 0                      | 0    | 0                   | x         |                       |       |     |
| 714      |   |                   | 0                        | x     | 0              | x                         | 260                    | Cypress: Mis                   | S                  | 1,190               | 11                       | 48    | 0         | 0                      | 0    | 27                  | A         | Dev                   | 2,914 |     |
| 715      |   |                   | 0                        | x     | 0              | x                         | 120                    | Bethel: Mis                    | S                  | 1,320               | 7                        | 35    | 0         | 0                      | 0    | 0                   | A         |                       |       |     |
| 716      |   |                   | 0                        | x     | 0              | x                         | 180                    | Bethel: Mis                    | S                  | 1,320               | 7                        | 35    | 0         | 0                      | 0    | 0                   | A         |                       |       |     |
| 717      | Hoffman: Clinton                                      | 1939              | 0                        | 11    | 0              | 721                       | 260                    | Cypress: Mis                   | S                  | 1,190               | 11                       | 48    | 0         | 0                      | 0    | 27                  | A         | Dev                   | 2,914 |     |
| 718      |   |                   | 0                        | x     | 0              | x                         | 120                    | Bethel: Mis                    | S                  | 1,320               | 7                        | 35    | 0         | 0                      | 0    | 0                   | A         |                       |       |     |
| 719      |   |                   | 0                        | x     | 0              | x                         | 180                    | Bethel: Mis                    | S                  | 1,320               | 7                        | 35    | 0         | 0                      | 0    | 0                   | A         |                       |       |     |
| 720      |   |                   | 0                        | 0     | 0              | 0                         | 20                     | McClosky: Mis                  | L                  | 3,365               | 3                        | 1     | 0         | 0                      | 0    | 0                   | N         | Mis                   | 3,411 |     |
| 721      | Hoodville East: Hamilton <sup>77</sup>                | 1944              | 0                        | 0     | 0              | 356                       | 250                    | St. Genevieve: Mis             | L                  | 2,800               | 5                        | 12    | 1         | 0                      | 0    | 11                  | M         | Mis                   | 2,954 |     |
| 722      | Hord: Clay  | 1950              | 0                        | 18    | 0              | 952                       | 560                    | St. Genevieve: Mis             | L                  | 2,800               | 5                        | 12    | 1         | 0                      | 0    | 24                  | N         | Mis                   | 2,975 |     |
| 723      | Hord South: Clay <sup>78</sup>                        | 1942              | 0                        | 0     | 0              | 0                         | 20                     | Aux Vases: Mis                 | S                  | 2,735               | 8                        | 2     | 0         | 0                      | 0    | 0                   | N         | NC                    |       |     |
| 724      |   |                   | 0                        | x     | 0              | x                         | 540                    | St. Genevieve: Mis             | L                  | 2,790               | 7                        | 24    | 0         | 0                      | 0    | 0                   | 0         | x                     |       |     |
| 725      |   |                   | 0                        | x     | 0              | x                         | 20                     | St. Genevieve: Mis             | L                  | 2,790               | 7                        | 24    | 0         | 0                      | 0    | 0                   | 0         | x                     |       |     |
| 726      | Hornsby South: Macopin <sup>79</sup>                  | 1956              | 0                        | 0     | 0              | 0                         | 20                     | St. Genevieve: Mis             | L                  | 2,790               | 7                        | 24    | 0         | 0                      | 0    | 0                   | 0         | 0                     | Pen   | 651 |
| 727      | Hoylton West: Washington                              | 1955              | 0                        | 5     | 0              | 1.3                       | 20                     | Clear-Creek: Dev               | L                  | 2,895               | 12                       | 1     | 0         | 0                      | 1    | x                   | Sil       | 2,965                 |       |     |
| 728      | Huey: Clinton   | 1945              | 0                        | 3     | 0              | 0                         | 100                    | Bethel: Mis                    | L                  | 1,260               | 6                        | 17    | 0         | 0                      | 1    | 1                   | AL        | Dev                   | 2,720 |     |
| 729      | Huey South: Clinton                                   | 1953              | 0                        | 16    | 0              | 48                        | 180                    | Bethel: Mis                    | S                  | 1,260               | 6                        | 16    | 3         | 0                      | 0    | 13                  | x         | Sil                   | 2,675 |     |









TABLE 11.—(Continued)

| Line No. | Pool: County                             | Year of discovery | Oil production (M bbls.) |        |         | Total area (acres) proved | Producing formation    |                                |                    |                     | Number of wells          |           |           | Deepest zone tested   |           |      |                     |                    |       |       |       |
|----------|--|-------------------|--------------------------|--------|---------|---------------------------|------------------------|--------------------------------|--------------------|---------------------|--------------------------|-----------|-----------|-----------------------|-----------|------|---------------------|--------------------|-------|-------|-------|
|          |  |                   | During 1957              |        | Total   |                           | Name: Age <sup>a</sup> | Character <sup>b</sup>         | Depth to top (ft.) | Av. thickness (ft.) | Completed to end of 1957 | Completed | Abandoned | Producing end of year | Structure | Name | Depth of hole (ft.) |                    |       |       |       |
|          |  |                   | Secondary recovery       | Total  |         |                           |                        |                                |                    |                     |                          |           |           |                       |           |      |                     | Secondary recovery | Total |       |       |
| 916      | Lancaster South: Wabash                  | 1946              | 9                        | 22     | 26      | 257                       | 110                    | Bethel: Mis                    | S                  | 2,520               | 6                        | 13        | 0         | 0                     | 0         | 11   | M                   | Mis                | 2,817 |       |       |
| 917      |  |                   | 9                        | 22     | 26      | 241                       | 70                     | Ohara: Mis                     | L                  | 2,670               | 6                        | 1         | 0         | 0                     | 0         | 0    | ML                  |                    |       |       |       |
| 918      |  |                   | 0                        | 0      | 0       | .5                        | 20                     | McClosky: Mis                  | L                  | 2,720               | 12                       | 1         | 0         | 0                     | 0         | 0    | MC                  |                    |       |       |       |
| 919      |  |                   | 0                        | 0      | 0       | 16                        | 20                     | McClosky: Mis                  | L                  |                     |                          | 25        | 0         | 0                     | 0         | 23   | x                   | Mis                | 2,324 |       |       |
| 920      | Lawrence West: Lawrence                  | 1952              | 0                        | 25     | 0       | 375                       | 270                    | Paint Creek: Mis <sup>2a</sup> | S                  | 2,040               | 4                        | 0         | 0         | 0                     | 0         | 0    | x                   |                    |       |       |       |
| 921      |  |                   | 0                        | x      | 0       | x                         | 10                     | Bethel: Mis                    | S                  | 2,050               | 15                       | 21        | 0         | 0                     | 0         | 0    | x                   |                    |       |       |       |
| 922      |  |                   | 0                        | x      | 0       | x                         | 240                    | Aux Vases: Mis                 | S                  | 2,110               | 8                        | 1         | 0         | 0                     | 0         | 0    | x                   |                    |       |       |       |
| 923      |  |                   | 0                        | .5     | 0       | 3                         | 10                     | McClosky: Mis                  | L                  | 2,225               | 11                       | 2         | 0         | 0                     | 0         | 0    | x                   |                    |       |       |       |
| 924      |  |                   | 0                        | x      | 0       | x                         | 40                     | McClosky: Mis                  | L                  |                     |                          | 2         | 0         | 0                     | 0         | 0    | x                   |                    |       |       |       |
| 925      | Lexington: Wabash                        | 1947              | 0                        | 5      | 0       | 375                       | 200                    | Cypress: Mis                   | S                  | 2,585               | 10                       | 11        | 0         | 0                     | 0         | 3    | A                   | Mis                | 3,031 |       |       |
| 927      |  |                   | 0                        | 1      | 0       | 10                        | 10                     | McClosky: Mis                  | L                  | 2,970               | 8                        | 10        | 0         | 0                     | 0         | 0    | AL                  |                    |       |       |       |
| 928      |  |                   | 0                        | 4      | 0       | 364                       | 200                    | Ste. Genevieve: Mis            | L                  | 2,915               | 4                        | 2         | 0         | 0                     | 0         | 1    | AC                  | Mis                | 3,045 |       |       |
| 929      | Lexington North: Wabash                  | 1951              | 0                        | .5     | 0       | 6                         | 40                     | McClosky: Mis                  | L                  | 2,425               | 10                       | 8         | 0         | 0                     | 0         | 0    | 8                   | A                  | Dev   | 4,000 |       |
| 930      | Lillyville: Cumberland, Effingham        | 1946              | 0                        | 36     | 0       | 340                       | 160                    | Pennsylvanian: Pen             | S                  | 530                 | 7                        | 37        | 1         | 0                     | 0         | 3    | ML                  | Ord                | 2,378 |       |       |
| 931      | Livingston: Madison                      | 1948              | 18                       | 36     | 235     | 413                       | 390                    | Pennsylvanian: Pen             | S                  |                     |                          | 9         | 2         | 0                     | 0         | 26   | ML                  | Mis                | 845   |       |       |
| 932      | Livingston South: Madison <sup>5</sup>   | 1950              | 0                        | 13     | 0       | 147                       | 330                    | Pennsylvanian: Pen             | S                  |                     |                          | 3         | 0         | 0                     | 0         | 8    | x                   | Mis                | 3,420 |       |       |
| 933      | Locust Grove: Wayne                      | 1951              | 0                        | 15     | 0       | 133                       | 120                    | Aux Vases: Mis                 | S                  | 3,215               | 10                       | 7         | 2         | 0                     | 0         | 0    | x                   |                    |       |       |       |
| 934      |  |                   | 0                        | x      | 0       | x                         | 80                     | Ohara: Mis                     | L                  | 3,240               | 4                        | 1         | 0         | 0                     | 0         | 0    | x                   |                    |       |       |       |
| 935      |  |                   | 0                        | x      | 0       | x                         | 40                     | McClosky: Mis <sup>2a</sup>    | L                  | 3,280               | 6                        | 0         | 0         | 0                     | 0         | 0    | x                   |                    |       |       |       |
| 937      |  |                   | 0                        | x      | 0       | x                         | 20                     | McClosky: Mis <sup>2a</sup>    | L                  |                     |                          | 1         | 0         | 0                     | 0         | 0    | x                   |                    |       |       |       |
| 938      | Locust Grove South: Wayne                | 1953              | 0                        | 2      | 0       | 13                        | 20                     | Rosiclare: Mis                 | L                  | 3,300               | 10                       | 1         | 0         | 0                     | 0         | 0    | 1                   | x                  | Mis   | 3,394 |       |
| 939      | Long Branch: Saline, Hamilton            | 1950              | 0                        | 34     | 0       | 190                       | 120                    | Paestine: Mis                  | S                  | 2,070               | 8                        | 2         | 0         | 0                     | 0         | 0    | AL                  |                    |       |       |       |
| 940      |  |                   | 0                        | 9      | 0       | 82                        | 30                     | Cypress: Mis                   | S                  | 2,745               | 13                       | 2         | 0         | 0                     | 0         | 0    | AL                  |                    |       |       |       |
| 941      |  |                   | 0                        | x      | 0       | x                         | 60                     | Aux Vases: Mis                 | S                  | 3,095               | 9                        | 5         | 1         | 0                     | 0         | 0    | AL                  |                    |       |       |       |
| 942      |  |                   | 0                        | x      | 0       | x                         | 40                     | McClosky: Mis                  | L                  | 3,220               | 5                        | 2         | 0         | 0                     | 0         | 0    | AL                  |                    |       |       |       |
| 943      |  |                   | 0                        | x      | 0       | x                         | 1                      | McClosky: Mis                  | L                  |                     |                          | 1         | 0         | 0                     | 0         | 0    | AC                  |                    |       |       |       |
| 944      | Long Branch South: Saline                | 1955              | 0                        | 2      | 0       | 9                         | 10                     | Cypress: Mis                   | S                  | 2,660               | 8                        | 1         | 0         | 0                     | 0         | 0    | 1                   | x                  | Mis   | 3,210 |       |
| 945      | Louden: Fayette, Effingham <sup>5</sup>  | 1937 10,697       | 11,800                   | 41,704 | 210,379 | 23,200                    | 23,000                 | Cypress: Mis                   | S                  | 1,500               | 30                       | 2,186     | 6         | 17                    | 1,970     | A    | St. Peter           | 4,680              |       |       |       |
| 946      |  |                   | x                        | x      | x       | 23,000                    | 4,000                  | Paint Creek: Mis               | S                  | 1,540               | 15                       | 1,205     | 2         | 0                     | 0         | 0    | A                   |                    |       |       |       |
| 947      |  |                   | x                        | x      | x       | 9,000                     | 9,000                  | Bethel: Mis                    | S                  | 1,550               | 15                       | 175       | 1         | 0                     | 0         | 0    | A                   |                    |       |       |       |
| 948      |  |                   | x                        | x      | x       | 60                        | Aux Vases: Mis         | S                              | 1,600              | 6                   | 1                        | 0         | 0         | 0                     | 0         | 0    | A                   |                    |       |       |       |
| 949      |  |                   | 0                        | x      | 0       | x                         | 20                     | McClosky: Mis                  | L                  | 1,785               | 4                        | 1         | 0         | 0                     | 0         | 0    | AL                  |                    |       |       |       |
| 950      |  |                   | 0                        | x      | 0       | x                         | 30                     | Carper: Mis                    | S                  | 2,830               | 9                        | 1         | 0         | 0                     | 0         | 0    | AL                  |                    |       |       |       |
| 951      |  |                   | 416                      | x      | 16,629  | x                         | 2,800                  | Devonian: Dev                  | D                  | 3,000               | 15                       | 85        | 0         | 0                     | 0         | 0    | AL                  |                    |       |       |       |
| 952      |  |                   | 0                        | x      | 0       | x                         | 20                     | Trenton: Ord <sup>2</sup>      | L                  | 3,905               | 12                       | 0         | 0         | 0                     | 0         | 0    | A                   |                    |       |       |       |
| 953      | Louisville North: Clay <sup>a</sup>      | 1953              | 0                        | 0      | 0       | 2                         | 20                     | Aux Vases: Mis                 | S                  | 3,755               | 10                       | 2         | 0         | 0                     | 0         | 0    | 0                   | x                  | ML    | 2,977 |       |
| 954      | Lynchburg: Jefferson                     | 1951              | 0                        | 11     | 0       | 222                       | 40                     | McClosky: Mis                  | L                  | 3,045               | 8                        | 2         | 0         | 0                     | 0         | 0    | 2                   | AC                 | Mis   | 3,169 |       |
| 955      | McKinley: Washington                     | 1940              | 0                        | 81     | 0       | 508                       | 230                    | Bethel: Mis                    | S                  | 1,000               | 5                        | 10        | 3         | 0                     | 0         | 0    | 12                  | D                  | Ord   | 3,983 |       |
| 956      |  |                   | 0                        | x      | 0       | x                         | 70                     | Situran: Sil                   | L                  | 2,240               | 40                       | 12        | 2         | 0                     | 0         | 0    | R                   |                    |       |       |       |
| 957      |  |                   | 0                        | x      | 0       | x                         | 200                    | Situran: Sil                   | L                  |                     |                          | 103       | 0         | 0                     | 0         | 0    | 72                  | A                  | Mis   | 3,385 |       |
| 961      | Maple Grove Consolidated: Edwards, Wayne | 1943              | 18                       | 112    | 111     | 3,737                     | 2,250                  | Aux Vases: Mis                 | S                  | 3,145               | 15                       | 20        | 0         | 0                     | 0         | 2    | 7                   | A                  | Mis   | 3,385 |       |
| 962      |  |                   | 7                        | x      | 7       | x                         | 290                    | Aux Vases: Mis                 | S                  |                     |                          | 103       | 0         | 0                     | 0         | 0    | 2                   | 7                  | A     | Mis   | 3,385 |



| 1024 | Miletus: Marion  | 1947 | 0  | 12    | 0   | 252    | 210    | Bethel: Mis                    | S  | 7     | 15  | 0   | 11  | A     | Dev | 3,950 |
|------|--|------|----|-------|-----|--------|--------|--------------------------------|----|-------|-----|-----|-----|-------|-----|-------|
| 1025 |  |      | 0  | x     | 0   | x      | 90     | Bethel: Mis                    | S  | 7     | 7   | 0   | 0   | A     |     |       |
| 1026 |  |      | 0  | x     | 0   | x      | 100    | Aux Vases: Mis                 | S  | 2,140 | 6   | 0   | 0   | A     |     |       |
| 1027 |  |      | 0  | x     | 0   | x      | 60     | McClosky: Mis                  | L  | 2,200 | 5   | 0   | 0   | A     |     |       |
| 1028 | Mill Shoals: White, Hamilton, Wayne                      | 1939 | 23 | 232   | 289 | 7,969  | 2,700  | Aux Vases: Mis                 | S  | 3,245 | 226 | 0   | 166 | A     | Mis | 4,311 |
| 1030 |  |      | 23 | x     | 287 | x      | 2,500  | Aux Vases: Mis                 | S  | 11    | 6   | 0   | 0   | A     |     |       |
| 1031 |  |      | 0  | x     | 0   | x      | 120    | Ohara: Mis                     | OL | 3,320 | 11  | 0   | 0   | AC    |     |       |
| 1032 |  |      | 0  | x     | 0   | x      | 200    | Ohara: Mis                     | LS | 3,345 | 8   | 0   | 0   | AC    |     |       |
| 1033 |  |      | 0  | x     | 0   | x      | 700    | McClosky: Mis                  | OL | 3,375 | 5   | 28  | 0   | AC    |     |       |
| 1034 |  |      | 0  | 0     | 0   | 0      | 20     | Ohara: Mis                     | L  | 2,925 | 5   | 0   | 0   | 0     | MC  | 3,010 |
| 1035 | Mills Prairie: Edwards <sup>101</sup>                    | 1948 | 0  | 0     | 0   | 5      | 40     | Ohara: Mis                     | L  | 2,925 | 5   | 0   | 0   | 0     | MC  | 3,003 |
| 1036 | Mills Prairie North: Edwards <sup>102</sup>              | 1953 | 0  | 0     | 0   | 8      | 20     | Ohara: Mis                     | S  | 1,330 | 6   | 1   | 0   | 0     | 0   | 2,452 |
| 1037 | Mitchellsville: Saline                                   | 1955 | 0  | 2     | 0   | 0      | 10     | Degonia: Mis                   | S  | 1,505 | 9   | 0   | 0   | x     |     |       |
| 1038 |  |      | 0  | 0     | 0   | 8      | 20     | Waltersburg: Mis               | S  | 1,330 | 6   | 1   | 0   | x     |     |       |
| 1039 |  |      | 0  | 2     | 0   | 0      | 10     | Waltersburg: Mis               | S  | 1,505 | 9   | 0   | 0   | x     |     |       |
| 1040 | Mt. Auburn Consolidated: Christian                       | 1943 | 0  | 241   | 0   | 1,039  | 2,540  | Silurian: Sil                  | L  | 1,890 | 15  | 112 | 4   | 106   | MU  | 2,020 |
| 1041 | Mt. Carmel: Wabash <sup>103</sup>                        | 1940 | x  | 502   | x   | 11,429 | 4,500  | Bridgeport: Pen                | L  | 1,370 | 20  | 2   | 299 | A     | Dev | 4,237 |
| 1042 |  |      | 0  | x     | 0   | x      | 60     | Bridgeport: Pen                | S  | 1,370 | 20  | 5   | 0   | AL    |     |       |
| 1043 |  |      | 0  | x     | 0   | x      | 700    | Biehl: Pen                     | S  | 1,470 | 20  | 0   | 0   | AL    |     |       |
| 1044 |  |      | 0  | x     | 0   | x      | 50     | Jordan: Pen                    | S  | 1,520 | 15  | 2   | 0   | AL    |     |       |
| 1045 |  |      | 0  | x     | 0   | x      | 40     | Palestine: Mis                 | S  | 1,580 | 10  | 3   | 0   | AL    |     |       |
| 1046 |  |      | 0  | x     | 0   | x      | 10     | Waltersburg: Mis <sup>23</sup> | S  | 1,690 | 10  | 0   | 0   | AL    |     |       |
| 1047 |  |      | 0  | x     | 0   | x      | 290    | Tar Springs: Mis               | S  | 1,790 | 13  | 17  | 0   | AL    |     |       |
| 1048 |  |      | 0  | x     | 0   | x      | 10     | Jackson: Mis <sup>24</sup>     | S  | 2,020 | 25  | 0   | 0   | AL    |     |       |
| 1049 |  |      | 0  | x     | 0   | x      | 3,360  | Cypress: Mis                   | S  | 2,025 | 15  | 258 | 2   | AL    |     |       |
| 1050 |  |      | 0  | x     | 0   | x      | 30     | Paint Creek: Mis               | S  | 2,095 | 17  | 2   | 0   | AL    |     |       |
| 1051 |  |      | 0  | x     | 0   | x      | 60     | Bethel: Mis                    | S  | 2,110 | 16  | 3   | 0   | AL    |     |       |
| 1052 |  |      | 0  | x     | 0   | x      | 260    | Ohara: Mis                     | S  | 2,320 | 5   | 9   | 0   | AL    |     |       |
| 1053 |  |      | 0  | x     | 0   | x      | 240    | Rosclaire: Mis                 | OL | 2,350 | 5   | 6   | 0   | AL    |     |       |
| 1054 |  |      | 0  | x     | 0   | x      | 1,300  | McClosky: Mis                  | OL | 2,360 | 6   | 45  | 0   | AL    |     |       |
| 1055 | Mt. Erie North: Wayne                                    | 1944 | 0  | 5     | 0   | 371    | 180    | Aux Vases: Mis                 | S  | 3,110 | 8   | 11  | 0   | 5     | Mis | 3,354 |
| 1057 |  |      | 0  | x     | 0   | x      | 50     | Aux Vases: Mis                 | S  | 3,110 | 8   | 0   | 0   | M     |     |       |
| 1058 |  |      | 0  | x     | 0   | x      | 40     | Ohara: Mis                     | L  | 3,170 | 6   | 4   | 0   | ML    |     |       |
| 1059 |  |      | 0  | x     | 0   | x      | 100    | McClosky: Mis                  | L  | 3,240 | 5   | 2   | 0   | ML    |     |       |
| 1060 | Mt. Olive: Montgomery <sup>5</sup>                       | 1942 | 0  | x     | 0   | x      | 50     | Pottsville: Pen                | L  | 605   | 6   | 0   | 0   | 0     | Pen | 905   |
| 1061 | Mt. Vernon: Jefferson                                    | 1943 | 0  | 13    | 0   | 331    | 230    | Aux Vases: Mis                 | S  | 2,665 | 8   | 19  | 0   | 4     | A   | 3,009 |
| 1062 |  |      | 0  | 2.5   | 0   | 0      | 20     | Ohara: Mis <sup>25</sup>       | L  | 2,750 | 6   | 0   | 0   | 0     | 0   |       |
| 1063 |  |      | 0  | 0     | 0   | 0      | 180    | McClosky: Mis                  | L  | 2,800 | 7   | 4   | 0   | 0     | 0   |       |
| 1064 |  |      | 0  | 10.5  | 0   | 0      | 40     | McClosky: Mis                  | L  | 2,675 | 6   | 1   | 0   | 0     | 0   |       |
| 1065 | Mt. Vernon North: Jefferson                              | 1956 | 0  | 14    | 0   | 19     | 40     | McClosky: Mis                  | L  | 2,675 | 6   | 2   | 2   | 2     | x   | 2,726 |
| 1066 | Murdock: Douglas <sup>64</sup>                           | 1955 | 0  | x     | 0   | x      | 10     | Pennsylvanian: Pen             | S  | 2,570 | 16  | 1   | 0   | 0     | 0   | 0     |
| 1067 | Nason: Jefferson   | 1943 | 0  | 2     | 0   | 27     | 20     | Rosclaire: Mis                 | S  | 2,790 | 12  | 1   | 0   | 1     | 0   | 0     |
| 1068 | New Bellair: Crawford <sup>105</sup>                     | 1942 | 0  | x     | 0   | 10     | 40     | Isabel: Pen                    | S  | 950   | 3   | 4   | 0   | 1     | M   | 2,760 |
| 1070 |  |      | 0  | 0     | 0   | 0      | 10     | Pennsylvanian: Pen             | S  | 1,250 | 20  | 0   | 0   | 0     | 0   |       |
| 1071 |  |      | 0  | 0     | 0   | 0      | 10     | Aux Vases: Mis                 | L  | 1,250 | 20  | 0   | 0   | 0     | 0   |       |
| 1072 | New City: Sangamon                                       | 1954 | 0  | 3     | 0   | 39     | 60     | Shurart: Sil                   | L  | 1,730 | 11  | 3   | 0   | 2     | MU  | 1,855 |
| 1073 | New Douglas South: Bond                                  | 1957 | 0  | 3     | 0   | 0      | 10     | Pennsylvanian: Pen             | S  | 640   | 7   | 1   | 0   | 1     | x   | 695   |
| 1075 | New Harmony Consolidated: Wabash, Edwards <sup>106</sup> | 1939 | x  | 3,669 | x   | 90,644 | 23,700 | Jamestown: Pen                 | S  | 720   | 13  | 12  | 31  | 1,622 | A   | 7,682 |
| 1076 |  |      | 0  | x     | 0   | x      | x      | Wansheld: Pen <sup>26</sup>    | S  | 720   | 13  | 2   | 0   | 0     | 0   | 0     |
| 1077 |  |      | 0  | x     | 0   | x      | x      | Bridgeport: Pen                | S  | 1,340 | 7   | 0   | 0   | 0     | 0   | 0     |
| 1078 |  |      | x  | x     | 0   | x      | x      | Biehl: Pen                     | S  | 1,850 | 20  | 3   | 0   | 0     | 0   | 0     |
| 1079 |  |      | x  | x     | 0   | x      | x      | Jordan: Pen                    | S  | 1,760 | 7   | 0   | 0   | 0     | 0   | 0     |
| 1080 |  |      | 0  | x     | 0   | x      | x      | Degonia: Pen <sup>27</sup>     | S  | 1,925 | 10  | 4   | 0   | 0     | 0   | 0     |
| 1081 |  |      | 0  | x     | 0   | x      | x      | Degonia: Mis                   | S  | 1,950 | 10  | 4   | 0   | 0     | 0   | 0     |
| 1082 |  |      | 0  | x     | 0   | x      | x      | Clare: Mis                     | L  | 2,000 | 10  | 3   | 0   | 0     | 0   | 0     |
| 1083 |  |      | 0  | x     | 0   | x      | 220    | Palestine: Mis                 | S  | 2,000 | 10  | 16  | 0   | 0     | 0   | 0     |
| 1084 |  |      | x  | x     | x   | x      | 860    | Waltersburg: Mis               | S  | 2,155 | 20  | 33  | 0   | 0     | 0   | 0     |



TABLE 11.—(Continued)

| Line No. | Pool: County                           | Year of discovery | Oil production (M bbls.) |       |                | Total proved area (acres) | Producing formation             |                        |                        | Number of wells    |                     |                          | Deepest zone tested |           |                        |       |                     |
|----------|--|-------------------|--------------------------|-------|----------------|---------------------------|---------------------------------|------------------------|------------------------|--------------------|---------------------|--------------------------|---------------------|-----------|------------------------|-------|---------------------|
|          |  |                   | During 1957              |       | To end of 1957 |                           | Total                           | Name: Age <sup>a</sup> | Character <sup>b</sup> | Depth to top (ft.) | Av. thickness (ft.) | Completed to end of 1957 | 1957                |           | Structure <sup>c</sup> | Name  | Depth of hole (ft.) |
|          |  |                   | Secondary recovery       | Total |                |                           |                                 |                        |                        |                    |                     |                          | Completed           | Abandoned |                        |       |                     |
| 1146     |  |                   | 0                        | x     | 0              | x                         | 700 Rosiclare: Mis              | L                      | 3,100                  | 4                  | 15                  | 0                        | x                   | MC        |                        |       |                     |
| 1147     |  |                   | 0                        | x     | 0              | x                         | 540 McClosky: Mis               | L                      | 3,115                  | 3                  | 17                  | 1                        | x                   | MC        |                        |       |                     |
| 1148     |  | 1940              | 86                       | 104   | 2,209          | 2,711                     | 720 Lake Creek: Pen             | S                      | 385                    | 20                 | 55                  | 0                        | 0                   | D         | Mis                    | 2,941 |                     |
| 1149     | Omaha: Gallatin <sup>s</sup>           |                   | 0                        | x     | 0              | x                         | 30 Pennsylvanian: Pen           | S                      | 580                    | 10                 | 4                   | 0                        | 0                   | D         |                        |       |                     |
| 1150     |  |                   | 0                        | x     | 0              | x                         | 60 Bethel: Pen                  | S                      | 1,335                  | 4                  | 4                   | 0                        | 0                   | D         |                        |       |                     |
| 1151     |  |                   | 0                        | x     | 0              | x                         | 360 Paleogene: Mis              | S                      | 1,700                  | 13                 | 24                  | 0                        | 0                   | D         |                        |       |                     |
| 1152     |  |                   | 86                       | x     | 2,209          | x                         | 700 Tarkenton: Mis              | S                      | 1,800                  | 13                 | 6                   | 0                        | 0                   | D         |                        |       |                     |
| 1153     |  |                   | 0                        | x     | 0              | x                         | 10 Bethel: Mis <sup>ss</sup>    | S                      | 2,570                  | 14                 | 0                   | 0                        | 0                   | D         |                        |       |                     |
| 1154     |  |                   | 0                        | x     | 0              | x                         | 20 Aux Vases: Mis               | S                      | 2,730                  | 20                 | 1                   | 0                        | 0                   | D         |                        |       |                     |
| 1155     |  |                   | 0                        | x     | 0              | x                         |                                 |                        |                        |                    | 1                   | 0                        | 0                   |           |                        |       |                     |
| 1156     | Omaha East: Gallatin                   | 1946              | 0                        | 3     | 0              | 14                        | 40 Cypress: Mis                 | S                      | 2,530                  | 6                  | 3                   | 1                        | 0                   | M         | Mis                    | 3,000 |                     |
| 1157     |  |                   | 0                        | 3     | 0              | 3                         | 10 Aux Vases: Mis               | S                      | 2,790                  | 8                  | 1                   | 0                        | 0                   | M         |                        |       |                     |
| 1158     |  |                   | 0                        | 5     | 0              | 21                        | 20 Ohara: Mis                   | L                      | 2,855                  | 8                  | 1                   | 0                        | 1                   | M         |                        |       |                     |
| 1159     |  | 1951              | 0                        | 2     | 0              | 16                        | 90 Cypress: Mis                 | S                      | 2,535                  | 15                 | 7                   | 0                        | 2                   | M         | Mis                    | 3,035 |                     |
| 1160     | Omaha South: Gallatin, Saline          |                   | 0                        | 2     | 0              | 16                        | 10 Aux Vases: Mis               | S                      | 2,870                  | 11                 | 5                   | 0                        | 1                   | N         |                        |       |                     |
| 1161     |  |                   | 0                        | 0     | 0              | 0                         | 20 Rosiclare: Mis               | L                      | 2,865                  | 1                  | 1                   | 0                        | 0                   | N         |                        |       |                     |
| 1162     |  | 1950              | 0                        | 8     | 0              | 129                       | 70 Cypress: Mis                 | S                      | 2,600                  | 14                 | 6                   | 0                        | 0                   | N         | Mis                    | 3,016 |                     |
| 1163     | Omaha West: Saline                     |                   | 0                        | x     | 0              | x                         | 50 Cypress: Mis                 | S                      | 2,800                  | 30                 | 4                   | 0                        | 0                   | A         |                        |       |                     |
| 1164     |  |                   | 0                        | x     | 0              | x                         | 10 Aux Vases: Mis <sup>ss</sup> | S                      | 2,800                  | 30                 | 0                   | 0                        | 0                   | A         |                        |       |                     |
| 1165     |  |                   | 0                        | 0     | 0              | 0                         | 20 McClosky: Mis                | L                      | 2,910                  | 8                  | 1                   | 0                        | 0                   | A         |                        |       |                     |
| 1166     |  |                   | 0                        | 0     | 0              | 0                         |                                 |                        |                        |                    | 1                   | 0                        | 0                   |           |                        |       |                     |
| 1167     |  | 1946              | 0                        | 0     | 0              | 5                         | 40 McClosky: Mis                | L                      | 2,490                  | 10                 | 2                   | 0                        | 1                   | D         | Mis                    | 2,584 |                     |
| 1168     |  | 1950              | 0                        | 9     | 0              | 97                        | 100 Aux Vases: Mis              | S                      | 2,800                  | 16                 | 8                   | 0                        | 1                   | A         | Mis                    | 3,000 |                     |
| 1169     | Omega: Marion <sup>ss</sup>            |                   | 0                        | 1     | 0              | 1                         | 20 Ohara: Mis                   | L                      | 2,880                  | 3                  | 5                   | 0                        | 1                   | AL        |                        |       |                     |
| 1170     | Orchardville: Wayne                    |                   | 0                        | 1     | 0              | 4                         | 20 Ohara: Mis                   | L                      | 2,905                  | 5                  | 2                   | 0                        | 0                   | AL        |                        |       |                     |
| 1171     |  |                   | 0                        | 5     | 0              | 5                         | 10 Paint Creek: Mis             | L                      | 2,655                  | 6                  | 1                   | 0                        | 0                   | AC        |                        |       |                     |
| 1172     | Orchardville North: Wayne              | 1956              | 0                        | 3     | 0              | 3                         | 10 Paint Creek: Mis             | L                      | 2,655                  | 6                  | 1                   | 0                        | 0                   | x         | Mis                    | 3,020 |                     |
| 1173     | Orchardville North: Wayne              | 1950              | 121                      | 166   | 746            | 1,604                     | 360 Bethel: Mis                 | S                      | 2,595                  | 15                 | 37                  | 1                        | 1                   | A         | Mis                    | 2,961 |                     |
| 1174     | Oskaloosa: Clay                        | 1950              | 121                      | 166   | 746            | 1,604                     | 20 McClosky: Mis                | L                      | 2,755                  | 5                  | 3                   | 0                        | 1                   | A         | Mis                    | 3,050 |                     |
| 1175     |  | 1947              | 0                        | 0     | 0              | 35                        | 20 Aux Vases: Mis               | S                      | 2,820                  | 5                  | 3                   | 0                        | 0                   | A         | Mis                    | 3,050 |                     |
| 1176     |  |                   | 0                        | 0     | 0              | 7                         | 20 McClosky: Mis                | L                      | 2,895                  | 4                  | 2                   | 0                        | 0                   | AL        |                        |       |                     |
| 1177     | Oskaloosa East: Clay <sup>10</sup>     | 1951              | 0                        | 2     | 0              | 28                        | 60 McClosky: Mis                | L                      | 2,770                  | 4                  | 3                   | 0                        | 0                   | AC        | Mis                    | 2,883 |                     |
| 1178     | Oskaloosa South: Clay                  | 1951              | 0                        | 8     | 0              | 22                        | 60 McClosky: Mis                | L                      | 1,470                  | 8                  | 4                   | 0                        | 0                   | AC        | Mis                    | 2,847 |                     |
| 1179     | Pana: Christian                        | 1940              | 0                        | 1     | 0              | 54                        | 50 Bethel: Mis                  | S                      | 705                    | 12                 | 3                   | 0                        | 0                   | x         | Dev                    | 2,847 |                     |
| 1180     | Pana: Bond, Montgomery <sup>s</sup>    | 1940              | 0                        | 1     | 0              | 8                         | 30 Bethel: Mis                  | S                      | 865                    | 12                 | 1                   | 0                        | 0                   | x         | Dev                    | 2,016 |                     |
| 1181     |  |                   | 0                        | 5     | 0              | 5                         | 10 Bethel: Mis                  | S                      | 2,250                  | x                  | 1                   | 0                        | 0                   | A         | Mis                    | 2,742 |                     |
| 1182     |  |                   | 0                        | 1     | 0              | 6                         | 30 Cypress: Mis                 | S                      | 2,250                  | x                  | 1                   | 0                        | 0                   | A         | Mis                    | 2,604 |                     |
| 1183     | Oskaloosa South: Clay                  | 1956              | 0                        | 0     | 0              | 0                         | 10 Cypress: Mis <sup>ss</sup>   | S                      | 2,250                  | x                  | 1                   | 0                        | 0                   | x         |                        |       |                     |
| 1184     | Pankeyville: Saline <sup>11</sup>      | 1956              | 0                        | 0     | 0              | 0                         | 10 Bethel: Mis <sup>ss</sup>    | S                      | 2,360                  | 13                 | 0                   | 0                        | 0                   | x         |                        |       |                     |
| 1185     | Pankeyville East: Saline <sup>ss</sup> | 1956              | 0                        | 0     | 0              | 0                         |                                 |                        |                        |                    | 1                   | 0                        | 0                   | x         |                        |       |                     |
| 1186     |  |                   | 0                        | 0     | 0              | 0                         |                                 |                        |                        |                    | 0                   | 0                        | 0                   | x         |                        |       |                     |
| 1187     |  |                   | 0                        | 0     | 0              | 0                         |                                 |                        |                        |                    | 0                   | 0                        | 0                   | x         |                        |       |                     |
| 1188     |  |                   | 0                        | 0     | 0              | 0                         |                                 |                        |                        |                    | 0                   | 0                        | 0                   | x         |                        |       |                     |
| 1189     |  |                   | 0                        | 0     | 0              | 0                         |                                 |                        |                        |                    | 0                   | 0                        | 0                   | x         |                        |       |                     |
| 1190     |  |                   | 0                        | 0     | 0              | 0                         |                                 |                        |                        |                    | 0                   | 0                        | 0                   | x         |                        |       |                     |
| 1191     |  |                   | 0                        | 0     | 0              | 0                         |                                 |                        |                        |                    | 0                   | 0                        | 0                   | x         |                        |       |                     |
| 1192     |  |                   | 0                        | 0     | 0              | 0                         |                                 |                        |                        |                    | 0                   | 0                        | 0                   | x         |                        |       |                     |

OIL PRODUCTION

|  |   |      |     |       |       |                            |                |       |    |     |    |   |     |     |       |       |
|--|---|------|-----|-------|-------|----------------------------|----------------|-------|----|-----|----|---|-----|-----|-------|-------|
| 1193 Parkersburg Consolidated: Richland, Edwards | 1941                                      | 194  | x   | 9,719 | 6,300 | Waltersburg: Mis           | S              | 2,430 | 10 | 277 | 3  | 9 | 154 | A   | Mis   | 3,333 |
| 1194   |   | x    | x   | x     | 90    | Cypress: Mis               | S              | 1,830 | 17 | 9   | 1  | 1 | A   |     |       |       |
| 1195   |   | x    | x   | x     | 160   | Paint Creek: Mis           | S              | 2,955 | 12 | 8   | 0  | x | A   |     |       |       |
| 1196   |   | x    | x   | x     | 70    | Bethel: Mis                | S              | 2,930 | 12 | 4   | 0  | x | A   |     |       |       |
| 1197   |   | x    | x   | x     | 140   | Aux Vases: Mis             | S              | 3,070 | 20 | 1   | 0  | x | A   |     |       |       |
| 1198   |   | x    | x   | x     | x     | Ohara: Mis                 | L              | 3,100 | 10 | 2   | 0  | 0 | A   |     |       |       |
| 1199   |   | x    | x   | x     | x     | Rosiclare: Mis             | L              | 3,150 | 10 | 42  | 0  | 0 | A   |     |       |       |
| 1200   |   | x    | x   | x     | 5,000 | McClosky: Mis              | OL             | 3,175 | 10 | 184 | 2  | x | A   |     |       |       |
| 1201   |   | x    | x   | x     | 80    | Pennsylvanian: Pen         | S              | 1,400 | 10 | 6   | 0  | 0 | 6   | x   | Mis   | 3,187 |
| 1202   | Parkersburg South: Edwards                | 1948 | 0   | 45    | 20    | Bethel: Mis                | S              | 2,815 | 5  | 2   | 0  | 0 | 5   | x   | Mis   | 3,331 |
| 1203   |   | 0    | 0   | 194   | 40    | Ohara: Mis                 | L              | 3,220 | 6  | 1   | 0  | 0 | 39  | AC  |       |       |
| 1204   | Parkersburg West: Richland, Edwards       | 1943 | 0   | 0     | 200   | McClosky: Mis              | L              | 3,260 | 5  | 9   | 0  | 1 | AC  |     |       |       |
| 1205   |   | 0    | 0   | 2,204 | 1,060 | Rosiclare: Mis             | L              | 3,005 | 5  | 57  | 0  | 0 | 39  | AC  |       |       |
| 1206   | Passport: Clay                            | 1945 | 1   | 0     | 40    | McClosky: Mis              | L              | 3,020 | 10 | 55  | 0  | 0 | AC  |     |       |       |
| 1207   |   | 0    | 0   | 1     | 1,060 | Cypress: Mis               | S              | 2,665 | 15 | 7   | 0  | 0 | 5   | x   | Mis   | 3,692 |
| 1208   | Passport South: Richland                  | 1948 | 0   | 13    | 110   | Rosiclare: Mis             | L              | 3,025 | 6  | 1   | 0  | 0 | AC  |     |       |       |
| 1209   |   | 0    | 0   | 19    | 20    | McClosky: Mis              | L              | 3,030 | 8  | 1   | 0  | 0 | AC  |     |       |       |
| 1210   | Passport West: Clay                       | 1954 | 0   | 5     | 20    | Genevieve: Mis             | L              | 3,030 | 5  | 10  | 1  | 6 | 6   | AC  | Mis   | 3,130 |
| 1211   | Patoka: Marion                            | 1937 | 93  | 267   | 7,689 | Cypress: Mis <sup>ss</sup> | S              | 1,280 | 10 | 208 | 25 | 1 | 116 | D   | Ord   | 4,056 |
| 1212   |   | 54   | x   | x     | 53    | Bethel: Mis                | S              | 1,410 | 27 | 165 | 1  | 5 | D   |     |       |       |
| 1213   |   | 37   | x   | x     | 6,296 | Rosiclare: Mis             | S              | 1,550 | 9  | 8   | 0  | 0 | D   |     |       |       |
| 1214   |   | 0    | x   | x     | 1,340 | Geneva: Dev                | D              | 2,835 | 10 | 1   | 1  | 0 | D   |     |       |       |
| 1215   |   | 0    | x   | x     | 0     | Trenton: Ord               | L              | 3,950 | 25 | 32  | 24 | 0 | D   |     |       |       |
| 1216   |   | 0    | 66  | 0     | 600   | Cypress: Mis               | S              | 1,340 | 16 | 64  | 0  | 1 | 49  | D   | Ord   | 4,178 |
| 1217   | Patoka East: Marion                       | 1941 | 0   | 0     | 500   | Bethel: Mis                | S              | 1,465 | 10 | 54  | 0  | 0 | D   |     |       |       |
| 1218   |   | 0    | x   | x     | 80    | McClosky: Mis              | L              | 1,635 | 8  | 5   | 0  | 0 | D   |     |       |       |
| 1219   |   | 0    | x   | x     | 40    | Geneva: Dev                | D              | 2,950 | 30 | 2   | 0  | 1 | R   |     |       |       |
| 1220   | Patoka South: Marion                      | 1953 | 0   | 72    | 380   | Cypress: Mis               | S              | 1,350 | 10 | 34  | 6  | 0 | 33  | A   | Mis   | 1,728 |
| 1221   | Patoka West: Fayette                      | 1950 | 0   | 16    | 180   | Bethel: Mis                | S              | 1,380 | 6  | 17  | 0  | 0 | 13  | A   | Mis   | 1,735 |
| 1222   | Phillipstown Consolidated: White, Edwards | 1939 | 145 | 875   | 1,700 | Anvil Rock: Pen            | S              | 795   | 10 | 473 | 5  | 6 | 375 | A   | Dev   | 5,350 |
| 1223   |   | 0    | x   | x     | 10    | Clark-Bridgeport: Pen      | S              | 1,350 | 10 | 13  | 0  | 0 | AF  |     |       |       |
| 1224   |   | 0    | x   | x     | x     | Pennsylvanian: Pen         | S              | 1,450 | 10 | 9   | 0  | 0 | AF  |     |       |       |
| 1225   |   | 0    | x   | x     | x     | Buchanan: Pen              | S              | 1,550 | 15 | 23  | 0  | 0 | AF  |     |       |       |
| 1226   |   | 67   | x   | x     | 1,451 | Biehl: Pen                 | S              | 1,875 | 15 | 45  | 0  | 0 | AF  |     |       |       |
| 1227   |   | 4    | x   | x     | 63    | Degonia: Mis               | S              | 1,975 | 15 | 35  | 0  | 0 | AF  |     |       |       |
| 1228   |   | 49   | x   | x     | 73    | Clare: Mis                 | S              | 2,010 | 12 | 4   | 0  | 0 | AF  |     |       |       |
| 1229   |   | 0    | x   | x     | 0     | Paletine: Mis              | S              | 2,050 | 11 | 1   | 0  | 0 | AF  |     |       |       |
| 1230   |   | 0    | x   | x     | 60    | Waltersburg: Mis           | S              | 2,280 | 11 | 4   | 0  | x | AF  |     |       |       |
| 1231   |   | 0    | x   | x     | 930   | Tar Springs: Mis           | S              | 2,295 | 15 | 61  | 0  | x | AF  |     |       |       |
| 1232   |   | 24   | x   | x     | 450   | Cypress: Mis               | S              | 2,720 | 12 | 23  | 0  | x | AF  |     |       |       |
| 1233   |   | 0    | x   | x     | 50    | Paint Creek: Mis           | S              | 2,780 | 9  | 4   | 0  | 0 | AF  |     |       |       |
| 1234   |   | 0    | x   | x     | 920   | Bethel: Mis                | S              | 2,810 | 15 | 71  | 2  | 1 | AF  |     |       |       |
| 1235   |   | 0    | x   | x     | 700   | Aux Vases: Mis             | S              | 2,880 | 15 | 34  | 1  | x | AF  |     |       |       |
| 1236   |   | 0    | x   | x     | 480   | Ohara: Mis                 | L              | 3,010 | 10 | 18  | 1  | x | ACf |     |       |       |
| 1237   |   | 0    | x   | x     | 1,060 | Rosiclare: Mis             | L <sup>S</sup> | 2,960 | 10 | 15  | 0  | x | ACf |     |       |       |
| 1238   |   | 0    | x   | x     | 0     | McClosky: Mis              | L              | 3,000 | 6  | 44  | 1  | 0 | ACf |     |       |       |
| 1239   |   | 0    | x   | x     | 20    | Tar Springs: Mis           | S              | 2,345 | 10 | 3   | 1  | 0 | M   | Mis | 3,161 |       |
| 1240   |   | 0    | x   | x     | 10    |                            |                |       |    | 1   | 0  | 0 | Mf  |     |       |       |







TABLE 11.—(Continued)

| Line No. | Pool: County                                | Year of discovery | Oil production (M bbls.) |       |                    |         | Total proved area (acres)       | Producing formation          |                        |                    |                      | Number of wells          |           |           |           | Deepest zone tested |                     |
|----------|---|-------------------|--------------------------|-------|--------------------|---------|---------------------------------|------------------------------|------------------------|--------------------|----------------------|--------------------------|-----------|-----------|-----------|---------------------|---------------------|
|          |   |                   | During 1957              |       | To end of 1957     |         |                                 | Name: Age <sup>a</sup>       | Character <sup>b</sup> | Depth to top (ft.) | Av. thick-ness (ft.) | Completed to end of 1957 | 1957      |           | Structure | Name                | Depth of hole (ft.) |
|          |   |                   | Secondary recovery       | Total | Secondary recovery | Total   |                                 |                              |                        |                    |                      |                          | Completed | Abandoned |           |                     |                     |
| 1375     |   |                   | 5                        | x     | 30                 | x       | 800 Aux Vases: Mis              | S                            | 2,825                  | 13                 | 62                   | 6                        | x         | A         |           |                     |                     |
| 1376     |   |                   | 0                        | x     | 0                  | x       | 280 Ohara: Mis                  | OL                           | 2,900                  | 6                  | 6                    | 2                        | x         | A         |           |                     |                     |
| 1377     |   |                   | 0                        | x     | 0                  | x       | 2,900 Rosiclare: Mis            | LS                           | 2,900                  | 8                  | 60                   | 4                        | x         | A         |           |                     |                     |
| 1378     |   |                   | x                        | x     | x                  | x       | 1,000 McClosky: Mis             | OL                           | 2,925                  | 8                  | 167                  | 5                        | x         | A         |           |                     |                     |
| 1379     |   |                   | x                        | x     | x                  | x       | 1                               |                              |                        |                    | 63                   | 2                        | x         | 0         |           |                     |                     |
| 1380     | Sailor Springs East: Clay <sup>123</sup>    | 1944              | 0                        | 0     | 0                  | 64      | 130 Cypress: Mis                | S                            | 2,695                  | 8                  | 11                   | 0                        | 0         | D         | Mis       | 3,168               |                     |
| 1381     |   |                   | 0                        | 0     | 0                  | 62      | 90 McClosky: Mis                | L                            | 3,020                  | 7                  | 9                    | 0                        | 0         | D         | Mis       |                     |                     |
| 1382     |   |                   | 0                        | 0     | 0                  | 2       | 40 Rosiclare: Mis               | L                            | 2,985                  | 2                  | 4                    | 1                        | 0         | 0         | MC        | 3,126               |                     |
| 1383     | Sailor Springs North: Clay <sup>124</sup>   | 1948              | 0                        | 0     | 0                  | 4       | 40 Rosiclare: Mis               | L                            | 2,985                  | 2                  | 4                    | 1                        | 0         | 0         | MC        |                     |                     |
| 1384     |   |                   | 0                        | 0     | 0                  | 4       | 40 Rosiclare: Mis               | L                            | 2,985                  | 2                  | 4                    | 1                        | 0         | 0         | MC        |                     |                     |
| 1385     |   |                   | 0                        | 0     | 0                  | x       | 60 McClosky: Mis                | L                            | 3,030                  | 2                  | 2                    | 0                        | 0         | 0         | MC        |                     |                     |
| 1386     |   |                   | 0                        | 0     | 0                  | x       | 1                               |                              |                        |                    | 1                    | 0                        | 0         | 0         | MC        |                     |                     |
| 1387     | Salem Consolidated: Marion, Jefferson       | 1938              | 4,965                    | 5,665 | 26,872             | 258,084 | 14,400                          |                              |                        | 2,768              | 4                    | 6                        | 2,179     | A         | St. Peter | 5,655               |                     |
| 1388     |   | 1945              | 3,568                    | x     | 22,396             | x       | x                               | Bethel: Mis                  | S                      | 1,780              | 40                   | 0                        | 0         | A         |           |                     |                     |
| 1389     |   |                   | 0                        | x     | 0                  | x       | x                               | Renault: Mis <sup>28</sup>   | S                      | x                  | x                    | 0                        | 0         | A         |           |                     |                     |
| 1390     |   |                   | 414                      | x     | 922                | x       | x                               | Aux Vases: Mis               | S                      | 1,825              | 40                   | 0                        | 0         | A         |           |                     |                     |
| 1391     |   |                   | 0                        | x     | 0                  | x       | x                               | Ohara: Mis                   | L                      | 2,075              | 3                    | 0                        | 0         | A         |           |                     |                     |
| 1392     |   |                   | 9                        | x     | 76                 | x       | x                               | Rosiclare: Mis               | L                      | 2,100              | 15                   | 3                        | 6         | A         |           |                     |                     |
| 1393     |   |                   | 903                      | x     | 3,019              | x       | x                               | McClosky: Mis                | L                      | 2,050              | 17                   | 389                      | 1         | A         |           |                     |                     |
| 1394     |   |                   | 0                        | x     | 0                  | x       | x                               | St. Louis: Mis <sup>28</sup> | L                      | 2,100              | 0                    | 0                        | 0         | A         |           |                     |                     |
| 1395     |   |                   | 0                        | x     | 0                  | x       | x                               | Salem: Mis                   | L                      | 2,100              | 8                    | 0                        | 0         | A         |           |                     |                     |
| 1396     |   |                   | 71                       | x     | 458                | x       | 5,860 Devonian: Dev             | L                            | 3,440                  | 40                 | 541                  | 0                        | 0         | A         |           |                     |                     |
| 1397     |   |                   | 0                        | x     | 0                  | x       | 2,160 Trenton: Ord              | L                            | 4,500                  | 50                 | 2                    | 0                        | 0         | A         |           |                     |                     |
| 1398     |   |                   | 0                        | x     | 0                  | x       | 1                               |                              |                        | 735                | 0                    | 0                        | 0         | A         |           |                     |                     |
| 1399     | Sansville: Edwards <sup>125</sup>           | 1942              | 0                        | 0     | 0                  | 0       | 30 Waltersburg: Mis             | S                            | 2,420                  | 7                  | 3                    | 0                        | 0         | A         | Mis       | 3,303               |                     |
| 1400     | Sansville North: Edwards                    | 1945              | 1                        | 8     | 6                  | 228     | 180 Paint Creek-Bethel: Mis     | S                            | 2,900                  | 6                  | 16                   | 0                        | 1         | A         | Mis       | 3,220               |                     |
| 1401     | Sansville Northwest: Edwards <sup>126</sup> | 1955              | 0                        | 0     | 0                  | 3       | 20 Ohara: Mis                   | S                            | 3,190                  | 4                  | 1                    | 0                        | 0         | A         | Mis       | 3,248               |                     |
| 1402     | Sansville West: Edwards                     | 1951              | 0                        | 6     | 0                  | 136     | 60 Rosiclare: Mis               | L                            | 3,260                  | 6                  | 3                    | 0                        | 0         | x         | Mis       | 3,425               |                     |
| 1403     |   |                   | 0                        | x     | 0                  | x       | 40 McClosky: Mis                | L                            | 3,275                  | 6                  | 0                    | 0                        | 0         | x         |           |                     |                     |
| 1404     |   |                   | 0                        | x     | 0                  | x       | 40 Rosiclare: Mis <sup>28</sup> | L                            | 3,475                  | 6                  | 2                    | 0                        | 0         | x         |           |                     |                     |
| 1405     |   |                   | 0                        | x     | 0                  | x       | 10 Cypress: Mis                 | S                            | 1,855                  | 4                  | 1                    | 0                        | 0         | x         |           |                     |                     |
| 1406     | Sandoval West: Clinton                      | 1946              | 0                        | 1     | 0                  | 25      | 80 Cypress: Mis                 | S                            | 3,005                  | 10                 | 1                    | 0                        | 0         | 0         | Mis       | 1,560               |                     |
| 1407     | Santa Fe: Clinton <sup>127</sup>            | 1944              | 0                        | 0     | 0                  | 0       | 20 Rosiclare: Mis               | OL                           | 3,005                  | 5                  | 4                    | 0                        | 0         | A         | Dev       | 2,512               |                     |
| 1408     | Schnell: Richland                           | 1938              | 0                        | 4     | 0                  | 245     | 80 McClosky: Mis                | L                            | 3,115                  | 4                  | 1                    | 0                        | 0         | AC        | Mis       | 3,130               |                     |
| 1409     | Schnell East: Richland <sup>128</sup>       | 1954              | 0                        | 0     | 0                  | 5       | 20 McClosky: Mis                | L                            | 3,105                  | 4                  | 1                    | 0                        | 0         | AC        | Mis       | 3,150               |                     |
| 1410     | Schnell South: Clay                         | 1951              | 0                        | 0     | 0                  | 10      | 60 Rosiclare: Mis               | L                            | 3,405                  | 4                  | 1                    | 0                        | 0         | 0         | AC        | Mis                 | 3,109               |
| 1411     | Seminary: Richland                          | 1945              | 4                        | 7     | 24                 | 216     | 160 McClosky: Mis               | L                            | 3,195                  | 8                  | 8                    | 0                        | 4         | 2         | MC        | Mis                 | 3,330               |
| 1412     | Sesser: Franklin                            | 1942              | 0                        | 63    | 0                  | 1,049   | 500 Cypress: Mis                | L                            | 2,455                  | 5                  | 39                   | 2                        | 0         | A         | Dev       | 4,688               |                     |
| 1413     |   |                   | 0                        | x     | 0                  | x       | 120 Renault: Mis                | S                            | 2,600                  | 10                 | 0                    | 0                        | 0         | AL        |           |                     |                     |
| 1414     |   |                   | 0                        | x     | 0                  | x       | 250 Aux Vases: Mis              | L                            | 2,700                  | 10                 | 19                   | 0                        | 0         | AL        |           |                     |                     |
| 1415     |   |                   | 0                        | x     | 0                  | x       | 80 Rosiclare: Mis               | L                            | 2,840                  | 10                 | 2                    | 0                        | 0         | AC        |           |                     |                     |
| 1416     |   |                   | 0                        | x     | 0                  | x       | 100 McClosky: Mis               | L                            | 2,840                  | 5                  | 2                    | 0                        | 0         | AC        |           |                     |                     |
| 1417     |   |                   | 0                        | x     | 0                  | x       | 60 Clear Creek: Dev             | L                            | 4,360                  | x                  | 2                    | 0                        | 0         | AC        |           |                     |                     |
| 1418     |   |                   | 0                        | x     | 0                  | x       | 1                               |                              |                        |                    | 28                   | 0                        | 0         | 0         |           |                     |                     |
| 1419     |   |                   | 0                        | 20    | 0                  | 524     | 340                             |                              |                        |                    | 28                   | 0                        | 3         | A         | Ord       | 4,078               |                     |
| 1420     | Shattuc: Clinton                            | 1945              | 0                        | 20    | 0                  | 524     | 340                             |                              |                        |                    | 28                   | 0                        | 3         | A         | Ord       | 4,078               |                     |





|      |                                      |      |   |     |   |        |               |                                |          |    |     |   |     |    |     |       |
|------|--------------------------------------|------|---|-----|---|--------|---------------|--------------------------------|----------|----|-----|---|-----|----|-----|-------|
| 1545 | Weaver: Clark                        | 1949 | 0 | 85  | 0 | 1,392  | 680           | 5                              | 38       | 0  | 0   | 0 | 29  | R  | Dev | 2,135 |
| 1546 |                                      |      | 0 | x   | x | 20     | Cole: Mis     | L 1,565                        | 0        | 0  | 0   | 0 |     |    |     |       |
| 1547 |                                      |      | 0 | x   | x | 680    | Devonian: Dev | L 2,030                        | 10       | 0  | 0   | 0 |     |    |     |       |
| 1548 | West Frankfort: Franklin             | 1941 | 1 | 169 | 1 | 3,201  | 1,150         | 5                              | 37       | 0  | 0   | 0 | 73  | R  | Mis | 3,156 |
| 1549 |                                      |      | 1 | x   | x | x      | 200           | Tar Springs: Mis               | S 2,060  | 20 | 0   | 0 |     |    |     |       |
| 1550 |                                      |      | 0 | x   | x | x      | 200           | Aux Vases: Mis                 | S 2,710  | 20 | 0   | 0 |     |    |     |       |
| 1551 |                                      |      | 0 | x   | x | x      | 480           | Ohara: Mis                     | L 2,760  | 8  | 0   | 0 |     |    |     |       |
| 1552 |                                      |      | 0 | x   | x | x      | 60            | Rosciare: Mis <sup>ss</sup>    | L 2,810  | 8  | 0   | 0 |     |    |     |       |
| 1553 |                                      |      | 0 | x   | x | x      | 280           | McClosky: Mis                  | L 2,825  | 14 | 0   | 0 |     |    |     |       |
| 1554 |                                      |      | 0 | x   | x | x      | 110           | Pennsylvanian: Pen             | S 400    | 11 | 0   | 0 | 3   | ML | Pen | 678   |
| 1555 | Westfield East: Clark <sup>s</sup>   | 1947 | 0 | x   | x | x      | 4             | Pleasantview: Pen              | S 275    | 5  | 1   | 0 | 0   | x  | Pen | 611   |
| 1556 | Westfield North: Coles <sup>st</sup> | 1949 | 0 | 0   | 0 | 4      | 10            | Pennsylvanian: Pen             | S 490    | 10 | 1   | 0 |     |    |     |       |
| 1557 |                                      |      | 0 | 0   | 0 | 858    | 550           | Hardinsburg: Mis               | S 2,310  | 10 | 0   | 0 | 31  | A  | Mis | 3,130 |
| 1558 | Whittington: Franklin                | 1939 | 0 | 78  | 0 | x      | 70            | Cypress: Mis                   | S 2,535  | 15 | 0   | 0 |     |    |     |       |
| 1559 |                                      |      | 0 | x   | x | x      | 40            | Aux Vases: Mis                 | S 2,735  | 15 | 0   | 0 |     |    |     |       |
| 1560 |                                      |      | 0 | x   | x | x      | 240           | Ohara: Mis                     | L 2,835  | 10 | 1   | 0 |     |    |     |       |
| 1561 |                                      |      | 0 | x   | x | x      | 20            | Rosciare: Mis                  | L 2,880  | 10 | 0   | 0 |     |    |     |       |
| 1562 |                                      |      | 0 | x   | x | x      | 100           | McClosky: Mis                  | L 2,870  | 9  | 0   | 0 |     |    |     |       |
| 1563 |                                      |      | 0 | x   | x | x      | 40            | St. Louis: Mis                 | L 3,080  | 6  | 0   | 0 |     |    |     |       |
| 1564 |                                      |      | 0 | x   | x | x      | 100           | Cypress: Mis                   | S 2,580  | 10 | 0   | 0 | 10  | A  | Dev | 4,810 |
| 1565 | Whittington South: Franklin          | 1950 | 0 | 21  | 0 | 316    | 100           | Bethel: Mis                    | S 2,615  | 10 | 0   | 0 | 10  | A  | Mis | 2,942 |
| 1566 | Whittington West: Franklin           | 1943 | 0 | 80  | 0 | 281    | 350           | Renault: Mis                   | S 2,680  | 15 | 6   | 0 |     |    |     |       |
| 1567 |                                      |      | 0 | x   | x | x      | 100           | Aux Vases: Mis                 | S 2,700  | 15 | 5   | 0 |     |    |     |       |
| 1568 |                                      |      | 0 | x   | x | x      | 150           | Aux Vases: Mis                 | S 2,800  | 15 | 5   | 0 |     |    |     |       |
| 1569 |                                      |      | 0 | x   | x | x      | 100           | Ohara: Mis                     | L 2,800  | 4  | 0   | 0 |     |    |     |       |
| 1570 |                                      |      | 0 | x   | x | x      | 20            | Rosciare: Mis <sup>ss</sup>    | L 2,780  | 4  | 0   | 0 |     |    |     |       |
| 1571 |                                      |      | 0 | x   | x | x      | 49            | McClosky: Mis                  | L 2,900  | 6  | 0   | 0 |     |    |     |       |
| 1572 |                                      |      | 0 | x   | x | x      | 400           | Bethel: Mis                    | S 2,490  | 10 | 0   | 0 | 38  | A  | Dev | 4,578 |
| 1573 | Williams Consolidated: Jefferson     | 1948 | 0 | 71  | 0 | 747    | 170           | Aux Vases: Mis                 | S 2,550  | 5  | 27  | 0 |     |    |     |       |
| 1574 |                                      |      | 0 | x   | x | x      | 280           | McClosky: Mis <sup>ss</sup>    | L x      | x  | 0   | 0 |     |    |     |       |
| 1575 |                                      |      | 0 | x   | x | x      | 20            | McClosky: Mis                  | L x      | x  | 0   | 0 |     |    |     |       |
| 1576 |                                      |      | 0 | x   | x | x      | 323           | McClosky: Mis                  | L 2,645  | 6  | 18  | 0 | 6   | A  | Mis | 3,281 |
| 1577 |                                      |      | 2 | 349 | x | 2,804  | 1,543         | Cypress: Mis                   | S 865    | 8  | 20  | 1 | 106 | AL | Ord | 3,279 |
| 1578 | Willow Hill East: Jasper             | 1946 | x | x   | x | x      | 223           | Bethel: Mis                    | S 1,020  | 10 | 34  | 0 |     |    |     |       |
| 1579 | Woburn Consolidated: Bond            | 1940 | 0 | x   | x | x      | 323           | Bethel: Mis                    | S 1,055  | 10 | 2   | 0 |     |    |     |       |
| 1580 |                                      |      | x | x   | x | x      | 53            | Aux Vases: Mis                 | S 2,275  | 8  | 47  | 0 |     |    |     |       |
| 1581 |                                      |      | 0 | x   | x | x      | 870           | Lingle: Dev                    | L 3,170  | 12 | 16  | 0 |     |    |     |       |
| 1582 |                                      |      | 0 | x   | x | x      | 340           | Trenton: Ord                   | L x      | x  | 0   | 0 |     |    |     |       |
| 1583 |                                      |      | 0 | x   | x | x      | 14,657        | Tar Springs: Mis <sup>ss</sup> | S x      | x  | 0   | 0 | 121 | A  | Ord | 5,101 |
| 1584 | Woodlawn: Jefferson                  | 1940 | 0 | 404 | 0 | 14,657 | 1,980         | Cypress: Mis                   | S 1,800  | x  | 0   | 0 |     |    |     |       |
| 1585 |                                      |      | 0 | x   | x | x      | 20            | Bethel: Mis                    | S 1,960  | 25 | 173 | 0 |     |    |     |       |
| 1586 |                                      |      | 0 | x   | x | x      | 1,900         | Bethel: Mis                    | S 1,975  | 10 | 0   | 0 |     |    |     |       |
| 1587 |                                      |      | 0 | x   | x | x      | 240           | Aux Vases: Mis <sup>ss</sup>   | LS 2,205 | 15 | 4   | 0 |     |    |     |       |
| 1588 |                                      |      | 0 | x   | x | x      | 300           | Rosciare: Mis                  | L 2,200  | 3  | 0   | 0 |     |    |     |       |
| 1589 |                                      |      | 0 | x   | x | x      | 20            | McClosky: Mis <sup>ss</sup>    | S 3,690  | 6  | 11  | 0 |     |    |     |       |
| 1590 |                                      |      | 0 | x   | x | x      | 240           | Lingle: Dev                    | S 2,785  | 13 | 1   | 0 |     |    |     |       |
| 1591 | Xenia: Clay                          | 1941 | 0 | 23  | 0 | 397    | 160           | Aux Vases: Mis                 | S 2,500  | 6  | 14  | 0 | 1   | A  | Dev | 4,698 |
| 1592 | Xenia East: Clay                     | 1951 | 0 | x   | x | x      | 150           | Cypress: Mis                   | S 2,710  | 6  | 1   | 0 | 10  | AL | Mis | 3,011 |
| 1593 |                                      |      | 0 | x   | x | x      | 10            | Bethel: Mis                    | S 2,970  | 7  | 2   | 0 |     |    |     |       |
| 1594 |                                      |      | 0 | x   | x | x      | 24            | McClosky: Mis                  | L 3,080  | 6  | 13  | 0 | 0   | AL | Mis | 3,059 |
| 1595 |                                      |      | 0 | x   | x | x      | 260           | Rosciare: Mis                  | L x      | x  | 0   | 0 | 0   | NC | Mis | 3,210 |
| 1596 |                                      |      | 0 | 40  | 0 | 782    | 240           | Rosciare: Mis                  | L x      | x  | 0   | 0 |     |    |     |       |
| 1597 | Zenith: Wayne                        | 1948 | 0 | 40  | 0 | 782    | 240           | Rosciare: Mis                  | L x      | x  | 0   | 0 |     |    |     |       |
| 1598 | Zenith North: Wayne                  | 1951 | 0 | 40  | 0 | 782    | 240           | Rosciare: Mis                  | L x      | x  | 0   | 0 |     |    |     |       |

TABLE 11.—(Concluded)

| Line No. | Pool: County                                     | Year of discovery | Oil production (M bbls.) |       |                    | Total proved area (acres) | Producing formation    |                            |                    |                     | Number of wells          |        |           |      | Deepest zone tested |           |                       |
|----------|--|-------------------|--------------------------|-------|--------------------|---------------------------|------------------------|----------------------------|--------------------|---------------------|--------------------------|--------|-----------|------|---------------------|-----------|-----------------------|
|          |  |                   | During 1957              |       | To end of 1957     |                           | Name: Age <sup>a</sup> | Character <sup>b</sup>     | Depth to top (ft.) | Av. thickness (ft.) | Completed to end of 1957 | 1957   |           | Name | Depth of hole (ft.) |           |                       |
|          |  |                   | Secondary recovery       | Total | Secondary recovery |                           |                        |                            |                    |                     |                          | Total  | Completed |      |                     | Abandoned | Producing end of year |
| 1605     |  |                   | 0                        | x     | 0                  | x                         | 160                    | McClosky: Mis <sup>1</sup> | L                  | 3,140               | 4                        | 1      | 0         | 0    | 0                   | NC        |                       |
| 1606     |  |                   | 0                        | 7     | 0                  | 743                       | 280                    |                            |                    |                     |                          | 4      | 0         | 0    | 0                   | NC        |                       |
| 1607     | Zenith South: Wayne                              | 1949              | 0                        | x     | 0                  | x                         | 40                     | Ohara: Miss <sup>3</sup>   | L                  | 2,920               | 6                        | 14     | 0         | 1    | 1                   | 4 M       |                       |
| 1608     |  |                   | 0                        | x     | 0                  | x                         | 280                    | McClosky: Mis <sup>1</sup> | L                  | 2,985               | 7                        | 0      | 0         | 0    | 0                   | MC        |                       |
| 1609     |  |                   | 0                        | x     | 0                  | x                         |                        |                            |                    |                     |                          | 12     | 0         | 1    | 1                   | MC        | 3,116                 |
| 1610     |  |                   |                          |       |                    |                           |                        |                            |                    |                     |                          | 2      | 0         | 0    | 0                   |           |                       |
| 1611     | Total of fields discovered after January 1, 1937 |                   | x 66,751                 |       | x 1,443,691        | 385,520                   |                        |                            |                    |                     |                          | 29,594 | 865       | 426  | 22,644              |           |                       |
| 1612     | Total for Illinois                               |                   | x 70,649                 |       | x 1,995,539        | 550,305                   |                        |                            |                    |                     |                          | 51,989 | 1,084     | 738  | 31,611              |           |                       |



TABLE 12.—(Continued)

| Line No. | Pool: County   | Year of discovery | Gas production<br>Million cu. ft. |                   | Proved<br>area (acres) | Producing formation    |                        |                       | Number of wells          |                             |                | Deepest zone<br>tested |                               |           |           |                        |
|----------|--|-------------------|-----------------------------------|-------------------|------------------------|------------------------|------------------------|-----------------------|--------------------------|-----------------------------|----------------|------------------------|-------------------------------|-----------|-----------|------------------------|
|          |  |                   | During<br>1957                    | To end<br>of 1957 |                        | Name: Age <sup>a</sup> | Character <sup>b</sup> | Depth to<br>top (ft.) | Av. thick-<br>ness (ft.) | Completed to<br>end of 1957 | Com-<br>pleted | Aban-<br>doned         | Produc-<br>ing end<br>of year | Structure | Name      | Depth of<br>hole (ft.) |
| 46       | Herald Consolidated: White, Gallatin <sup>6</sup> , 74 | 1939              | 43.6                              | x                 | 1,080                  | Anvil Rock: Pen        | S                      | 700                   | 25                       | 19                          | 0              | 0                      | 7                             | A         | Mis       | 3,394                  |
| 47       |  |                   | x                                 | x                 | 360                    | Pennsylvanian: Pen     | S                      | 1,750                 | 18                       | 3                           | 0              | 0                      | 0                             | AL        |           |                        |
| 48       |  |                   | 0                                 | x                 | 120                    | Waltersburg: Mis       | S                      | 2,240                 | 10                       | 3                           | 0              | 0                      | 0                             | AL        |           |                        |
| 49       |  |                   | 0                                 | x                 | 480                    | Tar Springs: Mis       | S                      | 2,315                 | 6                        | 4                           | 0              | 0                      | 0                             | AL        |           |                        |
| 50       | Inclose: Edgar, Clark <sup>6</sup>                     | 1941              | x                                 | x                 | 320                    | Pennsylvanian: Pen     | S                      | 540                   | 12                       | 8                           | 0              | 0                      | 0                             | AL        | Mis       | 815                    |
| 51       | Livingston East Gas: Madison                           | 1951              | 0                                 | 0                 | 40                     | Pennsylvanian: Pen     | S                      | 540                   | 12                       | 1                           | 0              | 0                      | 0                             | AL        | Mis       | 815                    |
| 52       | Livingston South: Madison <sup>6</sup>                 | 1950              | 0                                 | 0                 | 40                     | Pennsylvanian: Pen     | S                      | 530                   | 2                        | 1                           | 0              | 0                      | 0                             | ML        | Mis       | 845                    |
| 53       | Louden: Fayette, Effingham <sup>6</sup>                | 1937              | 0                                 | x                 | 1,760                  | Burtschi: Pen          | S                      | 1,000                 | 20                       | 14                          | 0              | 0                      | 0                             | A         | St. Peter | 4,680                  |
| 54       |  |                   | 0                                 | x                 | 320                    | Tar Springs: Mis       | S                      | 1,170                 | 2                        | 9                           | 0              | 0                      | 0                             | AL        |           |                        |
| 55       |  |                   | 0                                 | 0.9               | 1,440                  | Pottsville: Pen        | S                      | 605                   | 6                        | 3                           | 1              | 0                      | 0                             | A         | Pen       | 905                    |
| 56       | Mt. Olive: Montgomery <sup>6</sup>                     | 1942              | 0                                 | 0                 | 120                    | Tar Springs: Mis       | S                      | 1,900                 | 15                       | 2                           | 0              | 0                      | 0                             | D         | Mis       | 2,941                  |
| 57       | Omaha: Gallatin <sup>6</sup>                           | 1940              | 0                                 | 0                 | 280                    |                        | S                      |                       |                          | 7                           | 0              | 0                      | 0                             | A         | Dev       | 2,016                  |
| 58       | Panama: Bond, Montgomery <sup>6</sup>                  | 1940              | 0                                 | x                 | 160                    | Pennsylvanian: Pen     | S                      | 575                   | 30                       | 4                           | 0              | 0                      | 0                             | A         |           |                        |
| 59       |  |                   | 0                                 | x                 | 120                    | Bethel: Mis            | S                      | 865                   | 12                       | 3                           | 0              | 0                      | 0                             | A         |           |                        |
| 60       |  |                   | 0                                 | x                 | 280                    | Pennsylvanian: Pen     | S                      | 260                   | 15                       | 6                           | 0              | 0                      | 0                             | X         | Ord       | 1,513                  |
| 61       | Prentice: Morgan <sup>6</sup>                          | 1953              | 0                                 | 0                 | 40                     | Pennsylvanian: Pen     | S                      | 365                   | 3                        | 1                           | 0              | 0                      | 0                             | X         | Mis       | 450                    |
| 62       | Redmon North Gas: Edgar                                | 1955              | 0                                 | 0                 | 160                    | Waltersburg: Mis       | S                      | 2,150                 | 19                       | 1                           | 0              | 0                      | 0                             | AL        | Dev       | 5,225                  |
| 63       | Roland Consolidated: White, Gallatin <sup>6</sup>      | 1940              | 0                                 | 0                 | 1,800                  | Bridgeport: Pen        | S                      | 760                   | 15                       | 18                          | 0              | 5                      | 0                             | A         | Dev       | 3,133                  |
| 64       | Russellville Gas: Lawrence <sup>6</sup>                | 1937              | 0                                 | 7,081.6           |                        | Buchanan: Pen          | S                      | 1,100                 | 12                       | 42                          | 0              | 5                      | 0                             | AL        |           |                        |
| 65       |  |                   | 0                                 | x                 | x                      |                        | S                      |                       |                          | 18                          | 0              | 0                      | 0                             | AL        |           |                        |
| 66       |  |                   | 0                                 | x                 | x                      |                        | S                      |                       |                          | 42                          | 0              | 0                      | 0                             | A         | Mis       | 3,267                  |
| 67       | Storms Consolidated: White <sup>6</sup>                | 1937              | 0                                 | 0                 | 440                    | Gas: Pen               | S                      | 1,090                 | 40                       | 1                           | 0              | 0                      | 0                             | Af        |           |                        |
| 68       |  |                   | 0                                 | 0                 | 160                    | Waltersburg: Mis       | S                      | 2,230                 | 15                       | 7                           | 0              | 0                      | 0                             | AL        |           |                        |
| 69       |  |                   | 0                                 | 0                 | 280                    | Cypress: Mis           | S                      | 1,120                 | 13                       | 2                           | 0              | 0                      | 0                             | AL        | Mis       | 1,630                  |
| 70       | Tamaroa: Perry <sup>6</sup>                            | 1942              | 0                                 | 0                 | 320                    |                        | S                      |                       |                          | 7                           | 0              | 0                      | 0                             | A         | Ord       | 2,070                  |
| 71       | Waverly: Morgan <sup>6</sup>                           | 1946              | 0                                 | 0                 | 860                    | Pennsylvanian: Pen     | S                      | 250                   | 13                       | 1                           | 0              | 0                      | 0                             | AL        |           |                        |
| 72       |  |                   | 0                                 | 0                 | 160                    | Devonian: Dev          | S                      | 1,000                 | 10                       | 6                           | 0              | 0                      | 0                             | A         |           |                        |
| 73       |  |                   | 0                                 | 0                 | 700                    | Pennsylvanian: Pen     | S                      | 400                   | 11                       | 1                           | 0              | 0                      | 0                             | ML        | Pen       | 678                    |
| 74       | Westfield East: Clark <sup>6</sup>                     | 1947              | 0                                 | 0                 | 40                     |                        | S                      |                       |                          | 271                         | 26             | 6                      | 12                            |           |           |                        |
| 75       |  |                   | 0                                 | 0                 | 18,070                 |                        | S                      |                       |                          | 483                         | 28             | 6                      | 12                            |           |           |                        |
| 76       | Total for fields discovered after<br>January 1, 1937   |                   | 1,205.5                           | 10,321.4          | 18,070                 |                        |                        |                       |                          | 271                         | 26             | 6                      | 12                            |           |           |                        |
| 77       | Total for Illinois                                     |                   | 1,205.5                           | 12,827.9          | 30,425                 |                        |                        |                       |                          | 483                         | 28             | 6                      | 12                            |           |           |                        |

## PART II

# WATERFLOOD OPERATIONS

### ABSTRACT

During 1957 a total of 382 controlled waterflood projects were reported in operation in Illinois. Waterflood oil produced from these projects was approximately 34,300,000 barrels with an additional 1,750,000 barrels of oil estimated to have been produced from "dump" floods. This total of 36,050,000 barrels of waterflood oil represents some 47 percent of Illinois' 1957 oil production. Cumulative total of waterflood oil produced at the end of 1957 was 169,250,000 barrels.

### INTRODUCTION

As in previous years, this report is the result of a joint effort by the Illinois State Geological Survey and the Illinois Secondary Recovery and Pressure Maintenance Committee of the Interstate Oil Compact Committee. The following persons were appointed to the Study Committee by Governor William G. Stratton, and their efforts were extremely helpful in obtaining the data concerning the waterflood and pressure maintenance projects operating in Illinois during 1957 that are presented in tabular form in this report:

Carl W. Sherman, *Chairman*, Illinois State Geological Survey, Urbana, Illinois

A. H. Bell, previous Chairman, Illinois State Geological Survey, Urbana, Illinois

C. E. Brehm, Box 368, Mt. Vernon, Illinois

R. G. Brown, The Texas Company, Salem, Illinois

Robert Bulla, Robinson, Illinois

C. D. Dohrer, Phillips Petroleum Company, Carmi, Illinois

James T. Dorland, Calvert Drilling Company, Olney, Illinois

R. E. Dunn, Walter Duncan Oil Properties, Mt. Vernon, Illinois

Millard H. Flood, The Ohio Oil Company, Terre Haute, Indiana

T. W. George, Box 152, Mt. Carmel, Illinois

Robert G. Jones, The Ohio Oil Company, Bridgeport, Illinois

T. F. Lawry, Mahutska Oil Company, Robinson, Illinois

R. W. Love, The Texas Company, Salem, Illinois

E. A. Milz, Shell Oil Company, Centralia, Illinois

Paul Phillippi, Forest Oil Corp., Casey, Illinois

Mark Plummer, The Pure Oil Company, Olney, Illinois

J. D. Simmons, Carter Oil Company, Mattoon, Illinois

C. E. Skiles, Skiles Oil Corp., Mt. Carmel, Illinois

W. G. Sole, Magnolia Petroleum Company, Salem, Illinois

Harry F. Swannack, Gulf Oil Corporation, Evansville, Indiana

Carl R. Temple, Sohio Petroleum Company, Centralia, Illinois

R. R. Vincent, C. L. McMahan, Inc., Evansville, Indiana

R. A. Wilson, Tide Water Associated Oil Co., Robinson, Illinois

In order to review the questionnaire that was used in previous years to collect data on water injection and pressure maintenance projects, the Study Committee met at the office of the Pure Oil Company in Olney, Illinois, on March 11, 1957. A minor change in the section dealing with types of water injected was approved. It was also agreed that the questionnaire should inquire as to whether or not the project had been curtailed — either by injection or production rate — during 1957. It is hoped that this addition will be the first step in a detailed study as to the effects of curtailment.

Such a study has been requested by the Interstate Oil Compact Commission. A copy of this request will be mailed to waterflood operators who are asked to furnish data after the Study Committee has reviewed the preliminary information and



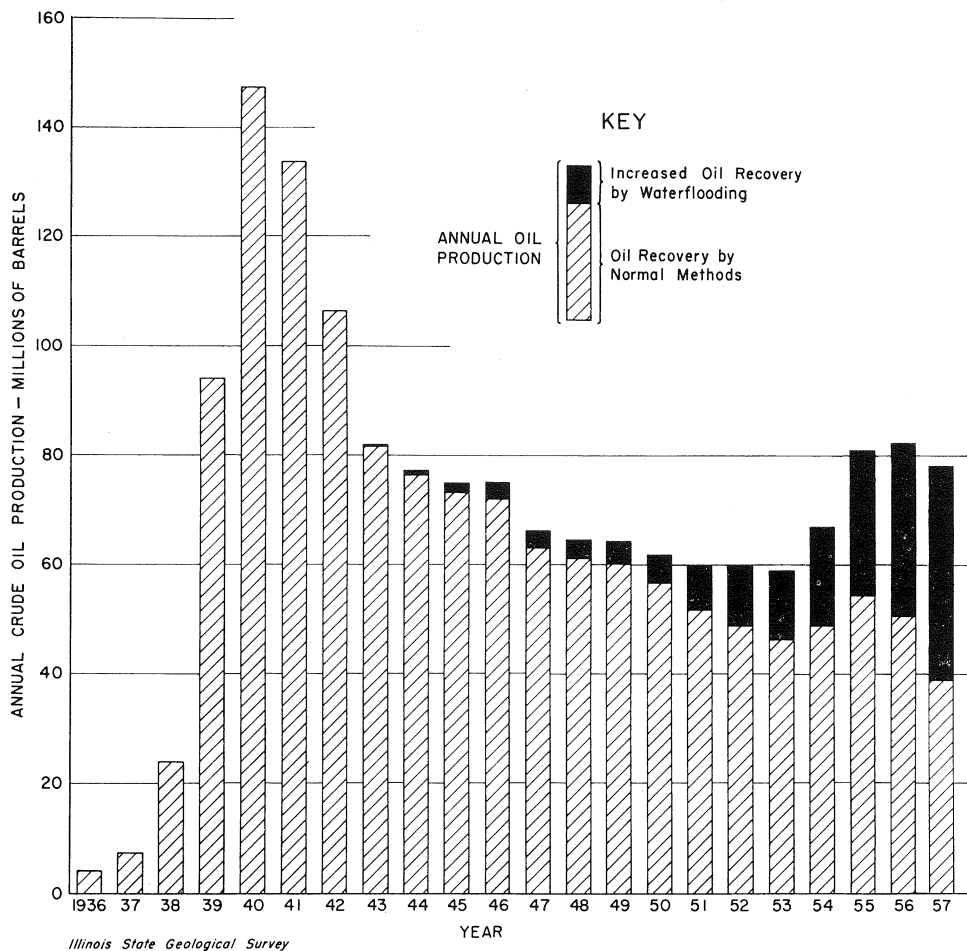


Fig. 4. — Annual crude oil production in Illinois.

has further discussed and agreed upon the methods to be used in an attempt to analyze this problem.

The State Geological Survey sent the revised questionnaire to all operators of Illinois waterfloods and compiled the data returned.

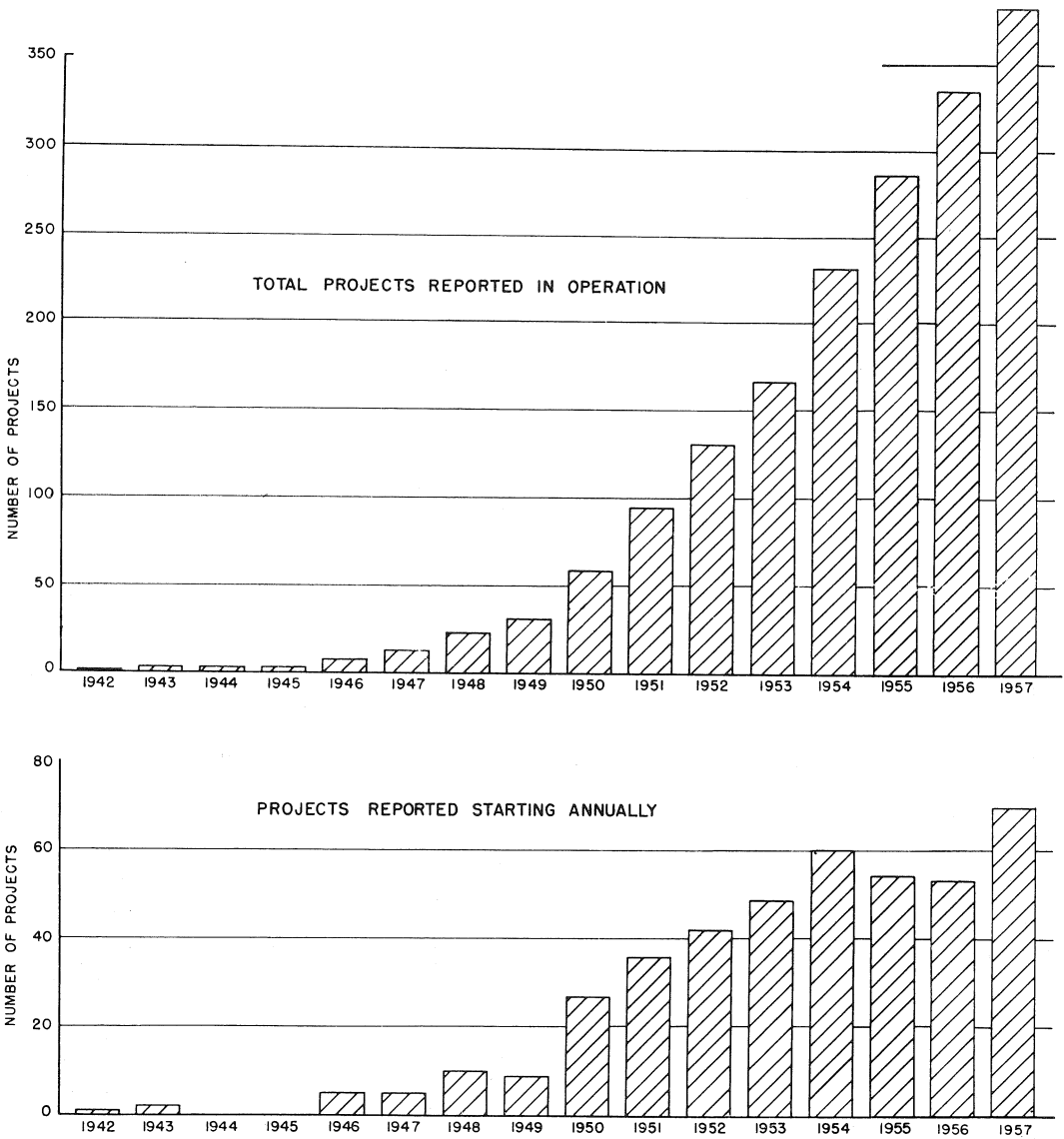
This report supplements eight similar summaries of waterflood operations published by the Illinois State Geological Survey that cover the years 1949 through 1956.

#### SUMMARY OF RESULTS

Reversing the trend of the past several years, Illinois' oil production in 1957 decreased some 5,665,000 barrels from the

previous year to a total of 76,649,000 barrels. Waterflood oil production continued its upward trend and increased from 31,300,000 barrels in 1956 to 36,050,000 barrels in 1957, representing 47 percent of the state's total oil production. The gain of 4,750,000 barrels represents a 15 percent increase over the previous year. Controlled waterflood projects accounted for 34,300,000 barrels of the total and are reported in table 13. The remaining 1,750,000 barrels is estimated to have been produced from "dump" floods.

It should be emphasized that the decrease in the total oil production was not necessarily due to a lower production capacity but in all probability was the re-



ILLINOIS STATE GEOLOGICAL SURVEY

Fig. 5. — Reported development of waterflood projects in Illinois.

sult of a drastic curtailment of pipe-line runs during the summer of 1957. This "pro-ration" was felt throughout the Illinois basin, and since both secondary and primary operations were affected, it is believed that they suffered more or less equally.

The effect of waterflood operations on the state's annual oil production since 1936 may be seen in figure 4. The cumulative waterflood recovery at the end of 1957 was approximately 169,250,000 barrels which includes an estimated 23,250,000 barrels of "dump" flood oil.

Table 13 is a summary of the data collected from waterflood operators through the use of questionnaires. The 382 active projects are arranged alphabetically by fields and are numbered according to the county in which they are located.

Following is a key to map numbers in figures 6, 7, and 8 and a summary of waterflood activity by counties.

### PROJECT NUMBERS BY COUNTY

SEE FIGURES 6, 7, AND 8

#### NUMBER OF PROJECTS

| Number | County      | Active water-flood | Active pressure maintenance | Abandoned | Total |
|--------|-------------|--------------------|-----------------------------|-----------|-------|
| 000    | Bond        | 2                  | 1                           | 0         | 3     |
| 100    | Christian   | 3                  | 0                           | 0         | 3     |
| 200    | Clark       | 17                 | 0                           | 6         | 23    |
| 300    | Clay        | 21                 | 0                           | 0         | 21    |
| 400    | Clinton     | 5                  | 3                           | 1         | 9     |
| 500    | Coles       | 3                  | 0                           | 0         | 3     |
| 600    | Crawford    | 61                 | 0                           | 5         | 66    |
| 700    | Cumberland  | 4                  | 0                           | 0         | 4     |
| 800    | Douglas     | 0                  | 0                           | 0         | 0     |
| 900    | Edgar       | 0                  | 0                           | 0         | 0     |
| 1000   | Edwards     | 11                 | 3                           | 2         | 16    |
| 1200   | Fayette     | 23                 | 1                           | 0         | 24    |
| 1300   | Franklin    | 7                  | 0                           | 0         | 7     |
| 1400   | Gallatin    | 14                 | 1                           | 0         | 15    |
| 1500   | Hamilton    | 7                  | 0                           | 0         | 7     |
| 1600   | Hancock     | 0                  | 0                           | 0         | 0     |
| 1700   | Hardin      | 0                  | 0                           | 0         | 0     |
| 1800   | Jackson     | 0                  | 0                           | 0         | 0     |
| 1900   | Jasper      | 7                  | 0                           | 1         | 8     |
| 2000   | Jefferson   | 5                  | 2                           | 1         | 8     |
| 2100   | Johnson     | 0                  | 0                           | 0         | 0     |
| 2200   | Lawrence    | 28                 | 0                           | 3         | 31    |
| 2300   | Macon       | 0                  | 0                           | 0         | 0     |
| 2400   | Macoupin    | 0                  | 0                           | 0         | 0     |
| 2500   | Madison     | 2                  | 0                           | 0         | 2     |
| 2600   | Marion      | 12                 | 0                           | 0         | 12    |
| 2700   | McDonough   | 0                  | 0                           | 0         | 0     |
| 2800   | Monroe      | 0                  | 0                           | 0         | 0     |
| 2900   | Montgomery  | 0                  | 0                           | 0         | 0     |
| 3000   | Moultrie    | 0                  | 0                           | 0         | 0     |
| 3100   | Perry       | 0                  | 0                           | 0         | 0     |
| 3200   | Pope        | 0                  | 0                           | 0         | 0     |
| 3300   | Randolph    | 0                  | 0                           | 0         | 0     |
| 3400   | Richland    | 17                 | 0                           | 1         | 18    |
| 3500   | Saint Clair | 0                  | 0                           | 0         | 0     |
| 3600   | Saline      | 1                  | 0                           | 0         | 1     |
| 3700   | Sangamon    | 0                  | 0                           | 0         | 0     |
| 3800   | Shelby      | 0                  | 0                           | 0         | 0     |
| 3900   | Wabash      | 46                 | 0                           | 6         | 52    |
| 4000   | Washington  | 3                  | 0                           | 0         | 3     |
| 4100   | Wayne       | 28                 | 0                           | 3         | 31    |
| 4200   | White       | 55                 | 3                           | 14        | 72    |
| 4300   | Williamson  | 0                  | 0                           | 0         | 0     |
| Totals |             | 382                | 14                          | 43        | 439   |

Based on the data shown in table 13 (which excludes "dump" floods), a total of 295,750,000 barrels of water was injected during 1957 in order to recover 34,300,000 barrels of oil. This is a ratio of 8.6 barrels of water per barrel of recovered oil in 1957. The cumulative figures at the end of 1957 were 1,310,000,000 barrels of water and 146,000,000 barrels of oil for an overall ratio of 9.0 barrels of water per barrel of oil.

The projects are listed below in numerical order. This index is included so that a particular project which may be of interest and can be located geographically in figures 6, 7, or 8 can be easily found in table 13 where they are arranged alphabetically but not necessarily numerically.

#### PROJECTS IN NUMERICAL ORDER AS SHOWN IN FIGURES 6, 7, AND 8

| No.  | Oil pool          | Operator             | Project              |
|------|-------------------|----------------------|----------------------|
| 000  | Old Ripley        | Cahill & Smith       | Ripley               |
| 001† | Beaver Creek      | Conrey & Conrey      | Wrone Lease          |
| 002  | Woburn C.         | Arrow                |                      |
| 100  | Assumption C.     | Continental          | Benoist              |
| 101  | Assumption C.     | Continental          | Devonian             |
| 102  | Assumption C.     | Continental          | Rosiclare            |
| 200  | Casey             | F. A. Bridge         | States Oil           |
| 201  | Casey             | Forest               | Casey                |
| 202  | Casey             | D. W. Franchot       | N. Casey             |
| 203  | Johnson N.        | Bass & Hamman        | N. Johnson           |
| 204  | Johnson N.        | C. L. McMahan        | Block "B"            |
| 205  | Johnson N.        | C. L. McMahan        | Block "B"            |
| 206  | Johnson N.        | Oldfield             | V. Jones             |
| 207  | Johnson N.        | Pure                 | N. Johnson           |
| 208  | Johnson N.        | Tidewater            | Clark #1             |
| 209  | Johnson S.        | Forest               | S. Johnson           |
| 210  | Johnson S.        | Pure                 | Johnson Extension #1 |
| 211  | Johnson S.        | Pure                 | Johnson Extension #2 |
| 212  | Johnson S.        | Pure                 | Pure-Kewanee         |
| 213  | Johnson S.        | Pure                 | Weaver-Bennett       |
| 214  | Martinsville      | Proderman & Connelly | Proderman & Connelly |
| 215  | Siggins           | General Operations   | Siggins              |
| 216  | Siggins           | Pure                 | Union Group          |
| 217* | Casey             | Calvan American      | Shawver              |
| 218* | Martinsville      | J. B. Buchman        |                      |
| 219* | Martinsville      | Magnolia             | Carper               |
| 220* | Martinsville      | Magnolia             | Casey                |
| 221* | Westfield         | Ree                  | Hawkins              |
| 222* | Westfield         | Forest               | Parker               |
| 300  | Clay City C.      | Calvert              | N. Clay City U.      |
| 301  | Clay City C.      | Phillips             | Minnie Lease         |
| 302  | Clay City C.      | Pure                 | Banker School        |
| 303  | Iola              | Tidewater            | Cora Davis           |
| 304  | Iola              | Tidewater            | Dee & Heirs          |
| 305  | Kenner            | Texas                | Kenner U.            |
| 306  | Kenner W.         | Phillips             | W. Kenner            |
| 307  | Oskaloosa         | Texas                | Oskaloosa            |
| 308  | Passport          | Magnolia             | Stanley, et al.      |
| 309  | Sailor Springs C. | Cities Service       | Wyatt                |
| 310  | Sailor Springs C. | Gulf                 | R. Keck              |
| 311  | Sailor Springs C. | Magnolia             | Sailor Springs U.    |
| 312  | Sailor Springs C. | W. C. McBride        | Goldsby-Dickey       |
| 313  | Sailor Springs C. | W. C. McBride        | Duff-Keck            |

| No.  | Oil pool          | Operator                | Project                    | No.    | Oil pool                 | Operator                     | Project                       |
|------|-------------------|-------------------------|----------------------------|--------|--------------------------|------------------------------|-------------------------------|
| 314  | Sailor Springs C. | Phillips                | Bothwell                   | 649    | Main C.                  | Ohio                         | See 623                       |
| 315  | Sailor Springs C. | Shulman                 | Colclasure                 | 650    | Main C.                  | Ohio                         | See 623                       |
| 316  | Sailor Springs C. | Shulman                 | Neff                       | 651    | Main C.                  | Ohio                         | See 623                       |
| 317  | Stanford S.       | Gulf                    | S. Stanford                | 652    | Main C.                  | Ohio                         | See 623                       |
| 318  | Sailor Springs C. | Ashland                 | E. Flora                   | 653    | Main C.                  | Ohio                         | See 623                       |
| 319  | Sailor Springs C. | Breux & Currin          |                            | 654    | Main C.                  | Ohio                         | See 623                       |
| 320  | Ingraham          | Carter                  | Ingraham                   | 655    | Main C.                  | Ohio                         | See 623                       |
| 400  | Bartelso          | T. R. Kerwin            | Belle Oil                  | 656    | Main C.                  | Ohio                         | See 623                       |
| 401  | Bartelso          | Robben Oil              | Robben U.                  | 657    | Main C.                  | Ohio                         | See 623                       |
| 402  | Bartelso          | H. S. Woodard           | H. S. Woodard              | 658    | Main C.                  | Ohio                         | See 623                       |
| 403  | Centralia         | Morgan                  |                            | 659    | Main C.                  | E. Constantin                | Sanders                       |
| 404  | Centralia         | Shell                   | Centralia                  | 660    | Main C.                  | General Oper-<br>ations      | Culver Extension              |
| 405† | Beaver Creek S.   | Conrey & Conrey         | Kneir-Ragland              | 661*   | Main C.                  | Skiles                       | Correll-Curley                |
| 406† | Germantown        | Nap Co.                 | Germantown                 | 662*   | Main C.                  | Petroleum Pro-<br>ducts Co.  |                               |
| 407† | Carlyle N.        | Conrey & Conrey         | Kriemeyer                  | 663*   | Main C.                  | Ree                          | Meserve                       |
| 408† | Centralia         | Sohio                   | Clinton                    | 664*   | Main C.                  | Skiles                       | Walter-Comm.                  |
| 500  | Mattoon           | Carter                  | Mattoon                    | 665*   | Main C.                  | Skiles                       | Weger                         |
| 501  | Mattoon           | Nokill                  | Mattoon                    | 700    | Siggins                  | Bell Brothers                | Flood #1                      |
| 502  | Westfield         | General Oper-<br>ations | Johnson                    | 701    | Siggins                  | Leland Fikes                 | Vevay Park                    |
| 600  | Bellair           | Forest                  | Bellair                    | 702    | Siggins                  | Forest                       | Siggins                       |
| 601  | Bellair           | Pure                    | Fulton                     | 703    | York                     | Trans-Southern               | York                          |
| 602  | Main C.           | Ashland                 | Birds #1                   | 1000   | Albion C.                | Bristol                      | Biehl U. #2                   |
| 603  | Main C.           | Ashland                 | Birds #2                   | 1001   | Albion C.                | Calvert                      | S. Albion                     |
| 604  | Main C.           | Bell Brothers           | Barrick                    | 1002   | Albion C.                | Jarvis Brothers &<br>Marcell | H. Wick                       |
| 605  | Main C.           | Calvan American         | Bishop                     | 1003   | Albion C.                | Superior                     | S. Albion S. R. P.<br>#1      |
| 606  | Main C.           | Calvan American         | Grogan                     | 1004   | Albion C.                | Superior                     | S. Albion #2                  |
| 607  | Main C.           | Calvan American         | Mitchell                   | 1005   | Albion C.                | Superior                     | S. Albion #2                  |
| 608  | Main C.           | W. Duncan               | Tohill-Hughes-<br>Robinson | 1006   | Albion C.                | Tidewater                    | S. W. Albion<br>Biehl Sand U. |
| 609  | Main C.           | E. Constantin           | J. S. Kirk                 | 1007   | Ellery E.                | Herndon                      |                               |
| 610  | Main C.           | E. Constantin           | Smith                      | 1008   | Maple Grove C.           | Ashland                      | Bennington                    |
| 611  | Main C.           | Forest                  | Oblong                     | 1009   | Maple Grove C.           | Investment Oil               | Graede & Miller               |
| 612  | Main C.           | D. W. Franchot          | Birds                      | 1010   | Samsville N.             | Ashland                      | W. Salem                      |
| 613  | Main C.           | General Oper-<br>ations | Culver                     | 1011†  | Albion C.                | Calvert                      | S. Albion L. Biehl            |
| 614  | Main C.           | General Oper-<br>ations | Little John                | 1012†* | Albion C.                | Superior                     | S. Albion U. #2               |
| 615  | Main C.           | G. M. J.                | Porterville                | 1013†  | Bone Gap C.              | Gallagher                    |                               |
| 616  | Main C.           | Hardinville             | Tohill & Hughes            | 1014*  | Albion C.                | Continental                  | Stafford                      |
| 617  | Main C.           | Wright                  | Wright                     | 1015*  | Albion C.                | First Nat'l Pet.<br>Trust    | Brown                         |
| 618  | Main C.           | A. J. Leverton          | Stanfield                  | 1200   | Louden                   | J. P. Babcock                | Rhodes & McCloy               |
| 619  | Main C.           | Logan                   | Alexander-<br>Reynolds     | 1201   | Louden                   | W. L. Belden                 | Hinton                        |
| 620  | Main C.           | Mahutska                | Oil Center                 | 1202   | Louden                   | W. L. Belden                 |                               |
| 621  | Main C.           | Mahutska                |                            | 1203   | Louden                   | Burtschi                     | D. L. Burtschi                |
| 622  | Main C.           | Mahutska                |                            | 1204   | Louden                   | Carter                       | Louden                        |
| 623, |                   |                         |                            | 1205   | Louden                   | Doran                        | Stewart & Dial                |
| 646  |                   |                         |                            | 1206   | Louden                   | General American             | Devore Coop.                  |
| thru |                   |                         |                            | 1207   | Louden                   | Jarvis Brothers &<br>Marcell | Homan                         |
| 658  | Main C.           | Ohio                    | 14 Projects                | 1208   | Louden                   | Jarvis & Marcell             | Yakey                         |
| 624  | Main C.           | Partlow &<br>Cochonour  | Rich                       | 1209   | Louden                   | B. Kidd                      | Louden                        |
| 625  | Main C.           | Red Head                | "D. I. M."                 | 1210   | Louden                   | Kingwood                     | Yolton                        |
| 626  | Main C.           | E. C. Reeves            | Billingsley                | 1211   | Louden                   | Kingwood                     | Yolton                        |
| 627  | Main C.           | Shakespeare             | McIntosh U.                | 1212   | Louden                   | J. A. Lewis                  | Louden Extension              |
| 628  | Main C.           | Shakespeare             | Montgomery U.              | 1213   | Louden                   | J. J. Lynn Estate            | E. C. Smith                   |
| 629  | Main C.           | Tidewater               | Clark-Hulse                | 1214   | Louden                   | Mabee                        | Louden                        |
| 630  | Main C.           | Tidewater               | Birch #1                   | 1215   | Louden                   | Mabee                        | Louden                        |
| 631  | Main C.           | Tidewater               | Birds Area                 | 1216   | Louden                   | Magnolia                     | Rhodes-Watson<br>Coop.        |
| 632  | Main C.           | Tidewater               | Barrick-Walters            | 1217   | Louden                   | W. C. McBride                | Stokes Weiler                 |
| 633  | Main C.           | Tidewater               | Good                       | 1218   | Louden                   | Shell                        | N. Louden U.                  |
| 634  | Main C.           | Tidewater               | W. A. Howard               | 1219   | Louden                   | Shell                        | S. Louden U.                  |
| 635  | Main C.           | Tidewater               | Ames                       | 1220   | Louden                   | R. H. Troop                  | Durbin Area                   |
| 636  | Main C.           | Tidewater               | Dennis-Hardin              | 1221   | Louden                   | R. H. Troop                  | Hiatt U.                      |
| 637  | Main C.           | Tidewater               | G. L. Thompson             | 1222   | St. James                | H. Rosenthal                 | Washburn                      |
| 638  | Main C.           | Tidewater               | Henry-Ickmire              | 1223†  | Louden                   | Carter                       | Louden Devonian               |
| 639  | Main C.           | Tidewater               | Lefever-Musgrave           | 1300   | Benton                   | Shell                        | Benton U.                     |
| 640  | Main C.           | Tidewater               | Montgomery-<br>Seitzinger  | 1301   | Frankfort W.             | Shell                        | W. Frankfort                  |
| 641  | Main C.           | Tidewater               | Stifle-Drake               | 1302   | Thompsonville E.         | Carter                       | E. Thompsonville              |
| 642  | Main C.           | Tidewater               | Stahl-Walters              | 1303   | Thompsonville N.         | Carter                       | N. Thompsonville              |
| 643  | Main C.           | Wilson                  | Hughes-Walker              | 1304   | Thompsonville N. J. & W. |                              | N. Thompsonville<br>U.        |
| 644  | Main C.           | Wiser                   | H. J. Musgrave             | 1305   | Thompsonville N. J. & W. | Shell                        | Thompsonville U.              |
| 645  | Main C.           | Wyman                   |                            | 1306   | West Frankfort           | Shell                        | W. Frankfort U.               |
| 646  | Main C.           | Ohio                    | See 623                    | 1400   | Inman W. C.              | Ferral                       |                               |
| 647  | Main C.           | Ohio                    | See 623                    | 1401   | Inman W. C.              | Gallagher                    | Bradley U.                    |
| 648  | Main C.           | Ohio                    | See 623                    | 1402   | Inman W. C.              | Gulf                         | W. Inman U.                   |

| No.   | Oil pool                               | Operator           | Project               | No.   | Oil pool       | Operator               | Project           |
|-------|--|--------------------|-----------------------|-------|----------------|------------------------|-------------------|
| 1403  | Inman W. C.                            | Gulf               | W. Inman U.           | 2228  | Lawrence       | Ohio                   | See 2214          |
| 1404  | Inman W. C.                            | Phillips           | Leverit               | 2229* | Lawrence       | Calvan American        | Waller            |
| 1405  | Herald C.                              | Calvert            | Cottonwood N.         | 2230* | Lawrence       | Ree                    | Snyder            |
| 1406  | Inman E. C.                            | Carter             | Big Barn              | 2500  | Livingston     | W. H. Krohn            |                   |
| 1407  | Inman E. C.                            | Carter             | Kerwin-Crawford       | 2501  | Livingston     | Cahill & Smith         | C. & O. Henke     |
| 1408  | Inman E. C.                            | Carter             | West U.               | 2600  | Odin           | Ashland                | Odin              |
| 1409  | Inman E. C.                            | Natural Resources  | Big Barn              | 2601  | Patoka         | Sohio                  | Patoka Benoist    |
| 1410  | Inman E. C.                            | Natural Resources  | Big Barn              | 2602  | Patoka         | Sohio                  | Patoka Rosiclare  |
| 1411  | Inman E. C.                            | Sun                | Inman East            | 2603  | Patoka         | Sohio                  | Stein U.          |
| 1412  | Junction                               | Alco               | Junction              | 2604  | Salem C.       | Texas                  | Rosiclare Sand U. |
| 1413  | Roland C.                              | Ind. Farm Bureau   | Omaha                 | 2605  | Salem C.       | Texas                  | Salem U.          |
| 1414† | Omaha                                  | Carter             | Omaha                 | 2606  | Salem C.       | Texas                  | Salem U.          |
| 1500  | Bungay C.                              | Texas              | Blairsville U.        | 2607  | Salem C.       | Texas                  | Salem U.          |
| 1501  | Dale C.                                | Inland Producers   | N. Rural Hill U.      | 2608  | Salem C.       | Texas                  | Salem U.          |
| 1502  | Dale C.                                | Phillips           | Cantrell U.           | 2609  | Tonti S.       | Slagter                |                   |
| 1503  | Dale C.                                | Phillips           | West End U.           | 2610  | Wamac          | D. Stinson             | Wamac             |
| 1504  | Dale C.                                | Texas              | W. Dale U.            | 2611  | Wamac          | Wamac                  | Wamac             |
| 1505  | Mill Shoals                            | B. Kidd            | Gardner               | 3400  | Calhoun C.     | Ashland                | Calhoun           |
| 1506  | Mill Shoals                            | Sohio              | B. R. Gray            | 3401  | Calhoun C.     | Phillips               | Bohiander U.      |
| 1900  | Clay City C.                           | Ashland            | Boos E.               | 3402  | Clay City C.   | Ashland                | Noble N.          |
| 1901  | Clay City C.                           | Robinson & Puckett | N. E. McCl. #1        | 3403  | Clay City C.   | Calvert                | E. Noble U.       |
| 1902  | Clay City C.                           | Robinson & Puckett | S. W. McCl. #2        | 3404  | Clay City C.   | Pure                   | Old Noble         |
| 1903  | Dundas E.                              | Gulf               | Bessie                | 3405  | Clay City C.   | Pure                   | S. Noble          |
| 1904  | Dundas E.                              | Sohio              | Dundas E.             | 3406  | Clay City C.   | Pure                   | S. W. Noble       |
| 1905  | Ste. Marie                             | J. R. Randolph     | Ste. Marie            | 3407  | Dundas E.      | Gulf                   | E. Dundas U.      |
| 1906  | Willow Hill E.                         | Pure               | Willow Hill U.        | 3408  | Olney C.       | Texas                  | E. Olney          |
| 1907* | Willow Hill E.                         | M. M. Spickler     |                       | 3409  | Parkersburg C. | Ohio                   | Parkersburg U.    |
| 2000  | Boyd                                   | Superior           | Boyd U.               | 3410  | Seminary       | Pure                   | Seminary          |
| 2001  | Boyd                                   | Superior           | Boyd U.               | 3411  | Stringtown     | N. C. Davies           | Stringtown        |
| 2002  | Divide E.                              | Gulf               | Halloway              | 3412  | Stringtown     | Helmerich & Payne      | Stringtown        |
| 2003  | Markham City                           | Tidewater          | Newton                | 3413  | Stringtown     | Skelly                 | Stringtown        |
| 2004  | Markham City                           |                    |                       | 3414  | Stringtown     | Murvin & Steber        |                   |
|       | W.                                     | Gulf               | Markham City          | 3415* | Parkersburg C. | Calvert                | Parkersburg       |
|       |  |                    | W.                    | 3416  | Clay City C.   | Ohio                   | See 2216          |
| 2005† | Boyd                                   | Superior           | Boyd Repressure       | 3417  | Parkersburg C. | Ohio                   | See 2216          |
| 2006† | Salem C.                               | Carter             | Dix (R & P. M.)       | 3600  | Harco          | Phillips               | Noble "A"         |
| 2007* | Markham City                           | Tidewater          | Newton Investment Co. | 3900  | Allendale      | Bass & Hamman          | Gilliate          |
| 2200* | Lawrence                               | Calvan American    | Piper                 | 3901  | Allendale      | Bass & Hamman          | White             |
| 2201  | Lawrence                               | Baldwin & Baldwin  |                       | 3902  | Allendale      | Bass & Hamman          |                   |
| 2202  | Lawrence                               | Bradley            | C. M. Perkins         | 3903  | Allendale      | Coon Creek             | Patton            |
| 2203  | Lawrence                               | Bradley            | C. M. Perkins         | 3904  | Allendale      | G. S. Engle            | Allendale         |
| 2204  | Lawrence                               | Dearborn           | Applegate             | 3905  | Allendale      | Forest                 | Allendale         |
| 2205  | Lawrence                               | W. Duncan          | L. C. David           | 3906  | Allendale      | T. W. George           | E. Maud           |
| 2206  | Lawrence                               | T. W. George       | Klondike              | 3907  | New Harmony    | T. W. George           | 2 Projects        |
| 2207  | Lawrence                               | W. W. Holden       | Gray                  | 3908  | Allendale      | Illinois Oil           | Allendale         |
| 2208  | Lawrence                               | W. C. McBride      | Crump "40"            | 3909  | Allendale      | B. Kidd                | D. F. Mattaland,  |
| 2209  | Lawrence                               | W. C. McBride      | Crump-Pyffe           | 3910  | Allendale      | Mattaland              | et al.            |
| 2210  | Lawrence                               | W. C. McBride      | Neal                  | 3911  | Allendale      | Westfall               |                   |
| 2211  | Lawrence                               | Murphy             | Stoltz                | 3912  | Browns E.      | T. W. George           | Bellmont          |
| 2212  | Lawrence                               | Murphy             | Stoltz                | 3913  | Browns E.      | Magnolia               | Bellmont          |
| 2213  |  |                    |                       | 3914  | Browns E.      | Magnolia               | S. Bellmont       |
| 2219  |  |                    |                       | 3915  | Keensburg S.   | White & Vickery        | A. P. Garst       |
| thru  |  |                    |                       | 3916  | Lancaster S.   | Ashland                | Lancaster S.      |
| 2223  | Lawrence                               | Ohio               | 6 Projects            | 3917  | Mt. Carmel     | G. S. Engle            | G. Dunkel         |
| 2214, |  |                    |                       | 3918  | Mt. Carmel     | First Nat'l Pet. Trust | Wabash U.         |
| 2224  |  |                    |                       | 3919  | Mt. Carmel     | T. W. George           | N. Mt. Carmel     |
| thru  |  |                    |                       | 3920  | Mt. Carmel     | T. W. George           |                   |
| 2228  | Lawrence                               | Ohio               | 6 Projects            | 3921  | Mt. Carmel     | O'Mera Brothers        | Mt. Carmel        |
| 2215  | Lawrence                               | Ohio               | Thorn                 | 3922  | Mt. Carmel     | Shell                  | Mt. Carmel U.     |
| 2216, |  |                    |                       | 3923  | Mt. Carmel     | Skiles                 | Chapman-Courter   |
| 3416, |  |                    |                       | 3924  | Mt. Carmel     | Skiles                 | W. Mt. Carmel     |
| 3417  | Lawrence, Clay City C., Parkersburg C. | Ohio               | 3 Projects            | 3925  | Mt. Carmel     | Texas                  | Stein             |
| 2217  | Lawrence                               | Shakespeare        | S. Bridgeport U.      | 3926  | New Harmony C. | Ashland                | Maud N.           |
| 2218  | St. Francisville                       |                    |                       | 3927  | New Harmony C. | Ashland                | Ravenstein        |
|       | E.                                     | J. E. Bauer        | All States Life       | 3928  | New Harmony C. | Cities Service         | Brines U.         |
| 2219  | Lawrence                               | Ohio               | See 2213              | 3929  | New Harmony C. | Phillips               | Shultz Lease      |
| 2220  | Lawrence                               | Ohio               | See 2213              | 3930  | New Harmony C. | Phillips               | Shultz Lease      |
| 2221  | Lawrence                               | Ohio               | See 2213              | 3931  | New Harmony C. | Skiles                 | Siebert Bottoms   |
| 2222  | Lawrence                               | Ohio               | See 2213              | 3932  | New Harmony C. | Skiles                 | E. Maud           |
| 2223  | Lawrence                               | Ohio               | See 2213              | 3933  | New Harmony C. | Skiles                 | E. Maud           |
| 2224  | Lawrence                               | Ohio               | See 2214              | 3934  | New Harmony C. | Skiles                 | W. Maud           |
| 2225  | Lawrence                               | Ohio               | See 2214              | 3935  | New Harmony C. | Sohio                  | Griffin N.        |
| 2226  | Lawrence                               | Ohio               | See 2214              | 3936  | New Harmony C. | Luboil                 | Helm              |
| 2227  | Lawrence                               | Ohio               | See 2214              | 3937  | New Harmony C. | Luboil                 | Helm              |
|       |  |                    |                       | 3938  | New Harmony C. | Luboil                 | Helm              |

| No.   | Oil pool        | Operator               | Project             | No.   | Oil pool        | Operator           | Project  |
|-------|-----------------|------------------------|---------------------|-------|-----------------|--------------------|--|
| 3939  | New Harmony C.  | Luboil                 | Helm                | 4212  | Herald C.       | O. B. Mitchell     | Bayley U.                                      |
| 3940  | New Harmony C.  | Luboil                 | Helm                | 4213  | Maunie S.       | Magnolia           | Palestine U.                                   |
| 3941* | Mt. Carmel      | First Nat'l Pet. Trust | Shaw Courter        | 4214  | New Harmony C.  | Arrow              | } Arrow-McBride, Hon-Bump-Crawford waterfloods |
| 3942* | Berryville C.   | Phillips               | Tarply              | 4215  | New Harmony C.  | Arrow              |  |
| 3943* | Berryville C.   | Phillips               | Townsend            | 4216  | New Harmony C.  | Arrow              |  |
| 3944* | Allendale       | Ind. Farm Bureau       | Woods               | 4217  | New Harmony C.  | Arrow              |  |
| 3945* | Friendsville N. | Magnolia               | J. L. Litherland    | 4218  | New Harmony C.  | Calstar            | Ford   |
| 3946* | Mt. Carmel      | First Nat'l Pet. Trust | Shaw Courter        | 4219  | New Harmony C.  | Calstar            | Ford "B"                                       |
| 3947  | New Harmony C.  | T. W. George           | E. Maud             | 4220  | New Harmony C.  | Clark & Clark      | Maunie N. U.                                   |
| 3948  | New Harmony C.  | Swan                   |                     | 4221  | New Harmony C.  | Coy                |  |
| 3949  | New Harmony C.  | West                   |                     | 4222* | New Harmony C.  | Skiles             | Smith-Davenport                                |
| 3950  | Allendale       | Ashland                | Allendale           | 4223* | New Harmony C.  | Sun                | Greathouse                                     |
| 4000  | Cordes          | Shell                  | Cordes Coop.        | 4224  | New Harmony C.  | Herndon & Ashland  | Calvin   |
| 4001  | Irvington       | Kapp                   |                     | 4225  | New Harmony     | Herndon            | Calvin   |
| 4002  | Irvington       | Mazzarino              |                     | 4226  | New Harmony C.  | Herndon            | Calvin   |
|       |                 |                        |                     | 4227  | New Harmony C.  | Inland             | Bowman's Bend U.                               |
| 4100  | Aden C.         | Horton                 | Aden                | 4228* | Concord         | Great Lakes Carbon | McClosky                                       |
| 4101  | Aden C.         | Texas                  | Aden                | 4229* | Concord         | Phillips           | Dallas   |
| 4102  | Aden C.         | Texas                  | Aden                | 4230* | Maunie S.       | Magnolia           | Tar Springs U.                                 |
| 4103  | Barnhill        | Ashland                | Barnhill            | 4231  | New Harmony C.  | Sinclair           | M. S. Donald                                   |
| 4104  | Barnhill        | Wausau                 | Simpson             | 4232* | Phillipstown C. | Skiles             | L. O. Cleveland                                |
| 4105  | Barnhill        | Wausau                 | Simpson             | 4233  | New Harmony C.  | Sun                | Ford "B"                                       |
| 4106  | Barnhill        | Wausau                 | Simpson             | 4234  | New Harmony C.  | Sun                | Ford "B"                                       |
| 4107  | Clay City C.    | Calvert                | Wilson              | 4235  | New Harmony C.  | Superior           | Kern-Hon U.                                    |
| 4108  | Clay City C.    | Tamarack Petroleum     |                     | 4236  | New Harmony C.  | Superior           | New Harmony U.                                 |
| 4109  | Clay City C.    | F & W                  | Miller-Lambrich     | 4237  | New Harmony C.  | Superior           | New Harmony U.                                 |
| 4110  | Clay City C.    | General American       | Covington U.        | 4238  | New Harmony C.  | Superior           | Waltersburg U.                                 |
| 4111  | Clay City C.    | T. W. George           |                     | 4239* | Maunie S.       | Magnolia           | Maunie Coop.                                   |
| 4112  | Clay City C.    | Pure                   | Jordan School       | 4240  | New Harmony C.  | Tidewater          | E. S. Dennis "A"                               |
| 4113  | Clay City C.    | Pure                   | N. E. Jordan School | 4241  | New Harmony C.  | Tidewater          | Evans  |
| 4114  | Clay City C.    | Pure                   | Van Fossan U.       | 4242  | New Harmony C.  | Tidewater          | Evans  |
| 4115  | Clay City C.    | Robinson & Puckett     | N. Puckett U.       | 4243  | New Harmony C.  | Tidewater          | Evans  |
| 4116  | Clay City C.    | Robinson & Puckett     | S. Puckett #1       | 4244  | New Harmony C.  | Tidewater          | E. S. Dennis "A"                               |
| 4117  | Clay City C.    | Shakespeare            | E. Banker School    | 4245* | Phillipstown C. | C. E. Brehm        | Phillipstown U. "A"                            |
| 4118  | Clay City C.    | Shakespeare            | E. Geff U.          | 4246* | Centerville E.  | Sun                | E. Centerville                                 |
| 4119  | Clay City C.    | Toklan                 |                     | 4247  | New Haven C.    | Hiawatha           | New Haven                                      |
| 4120  | Covington S.    | General American       | Heidinger-Vogel     | 4248  | New Haven C.    | Hiawatha           | New Haven                                      |
| 4121  | Johnsonville C. | Texas                  | Johnsonville U.     | 4249  | Phillipstown C. | C. E. Brehm        | Phillipstown U. B.                             |
| 4122  | Johnsonville C. | Texas                  | Johnsonville U.     | 4250  | Phillipstown C. | Bristol            | Grayville                                      |
| 4123  | Goldengate C.   | Cities Service         | Goldengate          | 4251  | Phillipstown C. | British American   | N. Calvin                                      |
| 4124  | Goldengate C.   | Cities Service         | Kletzker U.         | 4252  | Phillipstown C. | Magnolia           | Schmidt-Seifried                               |
| 4125  | Keenville       | Calvert                | Keenville U.        | 4253  | Phillipstown C. | Phillips           | Flora U.                                       |
| 4126  | Keenville       | W. Duncan              | Keenville U.        | 4254  | Phillipstown C. | Phillips           | Laura  |
| 4127  | Maple Grove C.  | Winmar                 | W. Bennington       | 4255  | Phillipstown C. | Phillips           | Phillipstown U.                                |
| 4128* | Golden Gate C.  | Cities Service         | Golden Gate         | 4256  | Phillipstown C. | Sun                | Phillipstown                                   |
| 4129* | Barnhill C.     | Wayne Development      | Walter              | 4257  | Phillipstown C. | Sun                | Phillipstown                                   |
| 4130* | Clay City C.    | Gulf                   | Winona              | 4258  | Roland C.       | Carter             | S. W. Roland                                   |
| 4200  | Albion C.       | Bristol                | Bieh1 U. #1         | 4259  | Roland C.       | Carter             | Stokes   |
| 4201  | Albion C.       | Concho                 | N. Crossville       | 4260  | Roland C.       | Pure               | Stokes-Brownsville                             |
| 4202  | Albion C.       | Concho                 | E. Centerville      | 4261  | Roland C.       | Shell              | Iron U.  |
| 4203  | Centerville E.  | Tekoil                 | E. Centerville      | 4262  | Roland C.       | T. W. George       | Pankey-Morehead U.                             |
| 4204  | Centerville E.  | Tekoil                 | E. Centerville      | 4263  | Storms C.       | Sinclair           | Storms U.                                      |
| 4205  | Concord         | B. Kidd                | Kerwin-Concord      | 4264† | Enfield S.      | Ryan Oil           | S. Enfield U. #1                               |
| 4206  | Concord         | Phillips               | Kerwin Lease        | 4265† | Maunie S.       | Nap Co.            | S. Clear Pond                                  |
| 4207  | Concord         | Phillips               | Tuley Lease         | 4266† | Phillipstown C. | Nap Co.            | Stokes "B" #3                                  |
| 4208  | Concord N.      | C. E. Brehm            | Concord N.          | 4267* | Centerville E.  | Lesh               | Centerville E.                                 |
| 4209  | Enfield S.      | Ryan                   | S. Enfield U. #2    | 4268* | Maunie S.       | Magnolia           | Tar Springs U. #2                              |
| 4210  | Herald C.       | C. E. Brehm            | Herald W.           | 4269* | New Harmony C.  | Sun                | Ford "A"                                       |
| 4211  | Herald C.       | Mabee-Allen            | Ackerman U.         | 4270* | Phillipstown C. | Sun                | Phillipstown                                   |
|       |                 |                        |                     | 4271* | Storms C.       | Mabee              |  |

†—Pressure maintenance.

\*—Abandoned.



The reported number of waterflood projects commenced during each year from 1942 through 1957 is shown in figure 5. The total of 382 projects in 1957 is an increase of 49 during the past year and is consistent with the average rate of growth since 1949. These 382 floods represent the development of 112,000 acres, or about 20 percent of the state's total oil-productive acreage, and gives an average cumulative waterflood recovery of 1300 barrels per acre. It is undoubtedly too early in the waterflood life of the Illinois basin to attach any particular significance to this figure at this time but it should prove interesting to watch this value in future years.

There were 5,734 injection wells and 7,814 producers reported in operation during 1957.

As can be seen in table 13, there were 62 projects that were curtailed during 1957 by reducing production, injection, or both; 21 of these were curtailed in production only, one by injection only, and 40 by limiting both production and injection. It is planned that the operators of these

various floods will be contacted in the near future to determine if there are perhaps a few projects with sufficient geologic and operational control and available data to warrant a detailed study.

Table 14 represents the reported data on a total of 43 projects that had been abandoned by the end of 1957.

Those projects reporting the use of water injection as a means of pressure maintenance are listed in table 15. No attempt has been made to differentiate between primary oil produced and that production which is attributable to pressure maintenance operations.

Figures 6, 7, and 8 show the location of all projects listed in tables 13, 14, and 15. Because of the greater concentration of waterflood development in the areas of the "Old Field" and the Wabash Valley, these regions are shown as separate maps in figures 7 and 8.

A generalized geologic column, adjacent to figure 6, shows the stratigraphic sequence of oil-producing formations in the Illinois basin. It lists the oil producing formations and the number of reported floods in each.



| Formation<br>("Sand Name")     | Number of<br>waterfloods<br>reported<br>during 1957 |
|--------------------------------|---|
| * (Westfield "Gas" Sand)       | 0   |
| * (Casey "Gas" Sand)           | 1   |
| * (Siggins)                    | 5   |
| * (Bellair "500")              | 2   |
| * (Biehl)                      | 22  |
| * (Bridgeport)                 | 4   |
| * (Casey)                      | 12  |
| * (Claypool)                   | 2   |
| * (Jordan)                     | 3   |
| * (Pennsylvanian unclassified) | 4   |
| * (Petro)                      | 2   |
| * (Robinson)                   | 46  |
| * (U. Partlow)                 | 7   |
| Kinkaid                        | 0   |
| * (Chester unclassified)       | 2   |
| * Degonia                      | 1   |
| * Clore                        | 1   |
| * Palestine                    | 1   |
| Menard                         | 0   |
| * Waltersburg                  | 9   |
| Vienna                         | 0   |
| * Tar Springs                  | 14  |
| * Glen Dean                    | 0   |
| * Hardinsburg                  | 3   |
| * Golconda (Jackson)           | 2   |
| * Cypress (Kirkwood, Weiler)   | 82  |
| * Paint Creek (Bethel)         | 24  |
| * Yankeetown (Benoist)         | 23  |
| * Renault                      | 2   |
| * Aux Vases                    | 51  |
| Ste. Genevieve                 |   |
| * (Ohara)                      | 6   |
| * (Rosiclare)                  | 18  |
| * (McClosky)                   | 45  |
| * St. Louis                    | 0   |
| * Salem                        | 0   |
| Osage                          |   |
| * (Carper)                     | 0   |
| Chouteau                       | 0   |
| New Albany                     | 0   |
| * Devonian                     | 2   |
| * Silurian                     | 0   |
| Maquoketa                      | 0   |
| * (Trenton)                    | 0   |

\*Oil producing formation—also see figure 3.

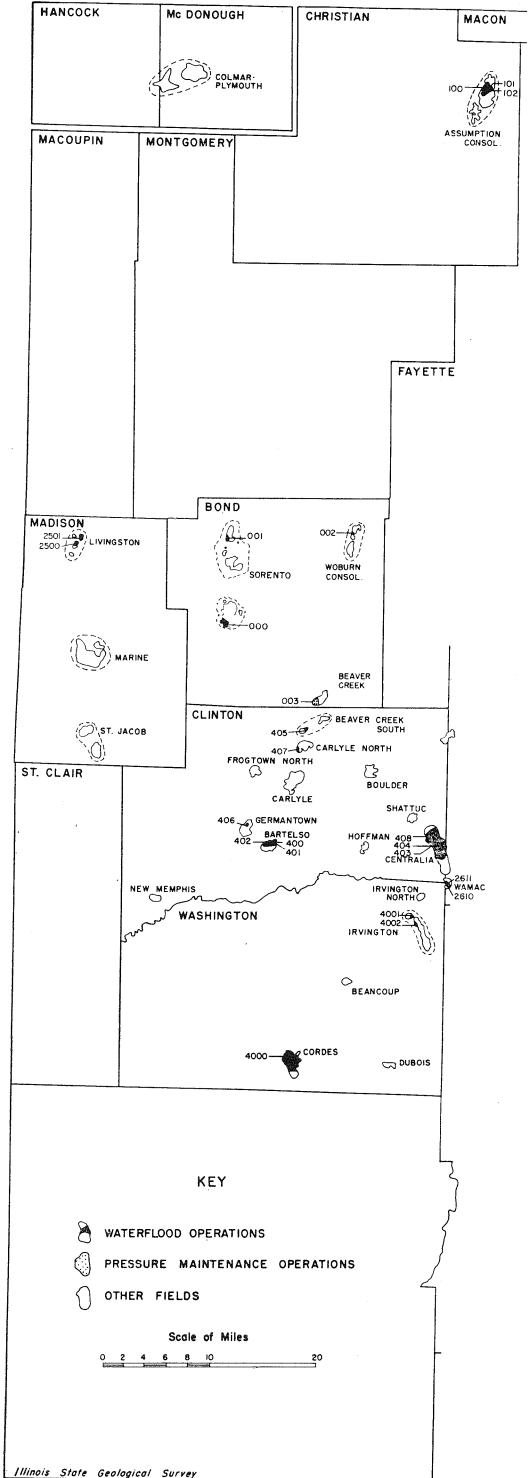
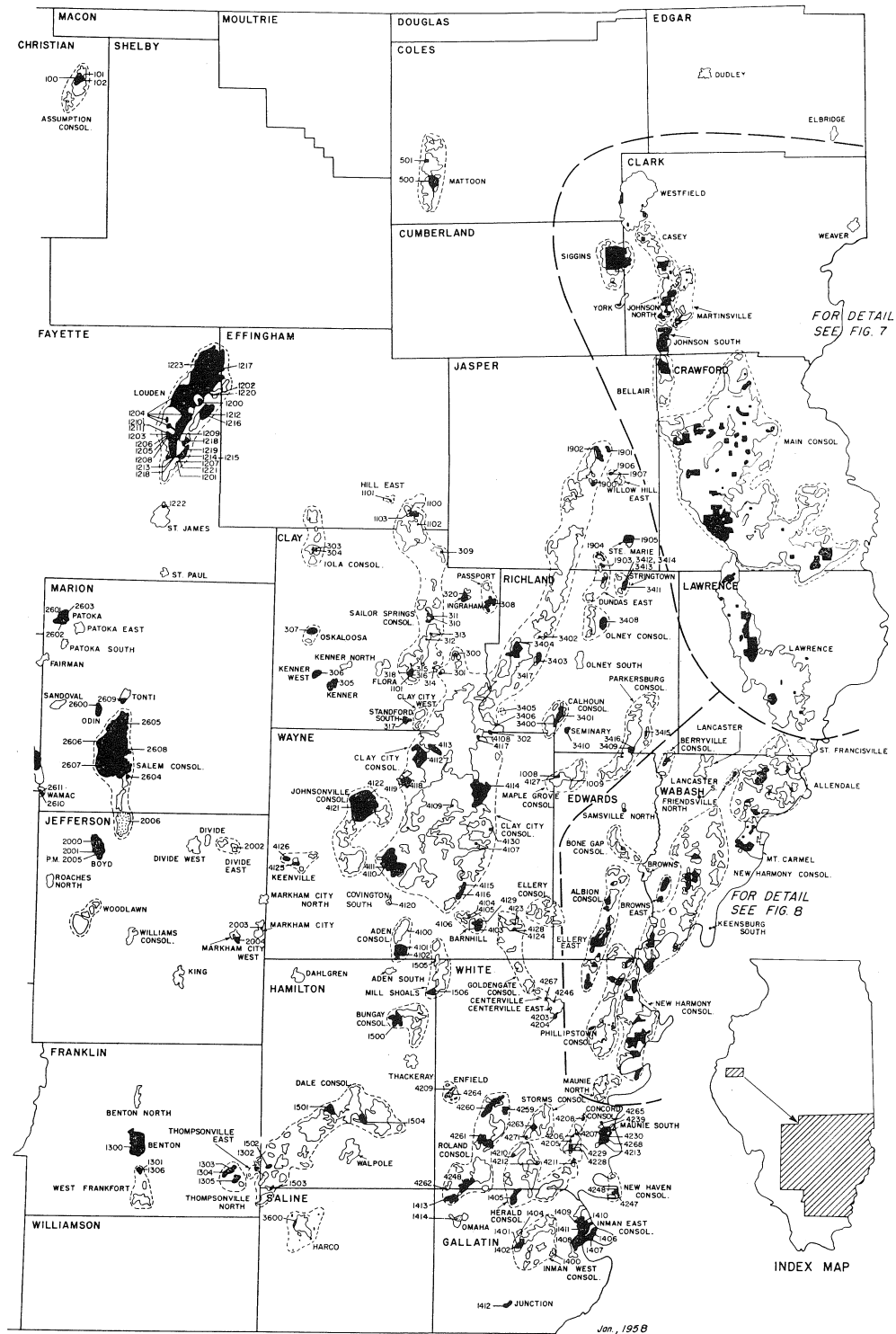


Fig. 6.—Waterflood and pressure are shown in detail in figures



maintenance operations in Illinois during 1956 shown in black. Areas outlined by heavy dashes 7 and 8.

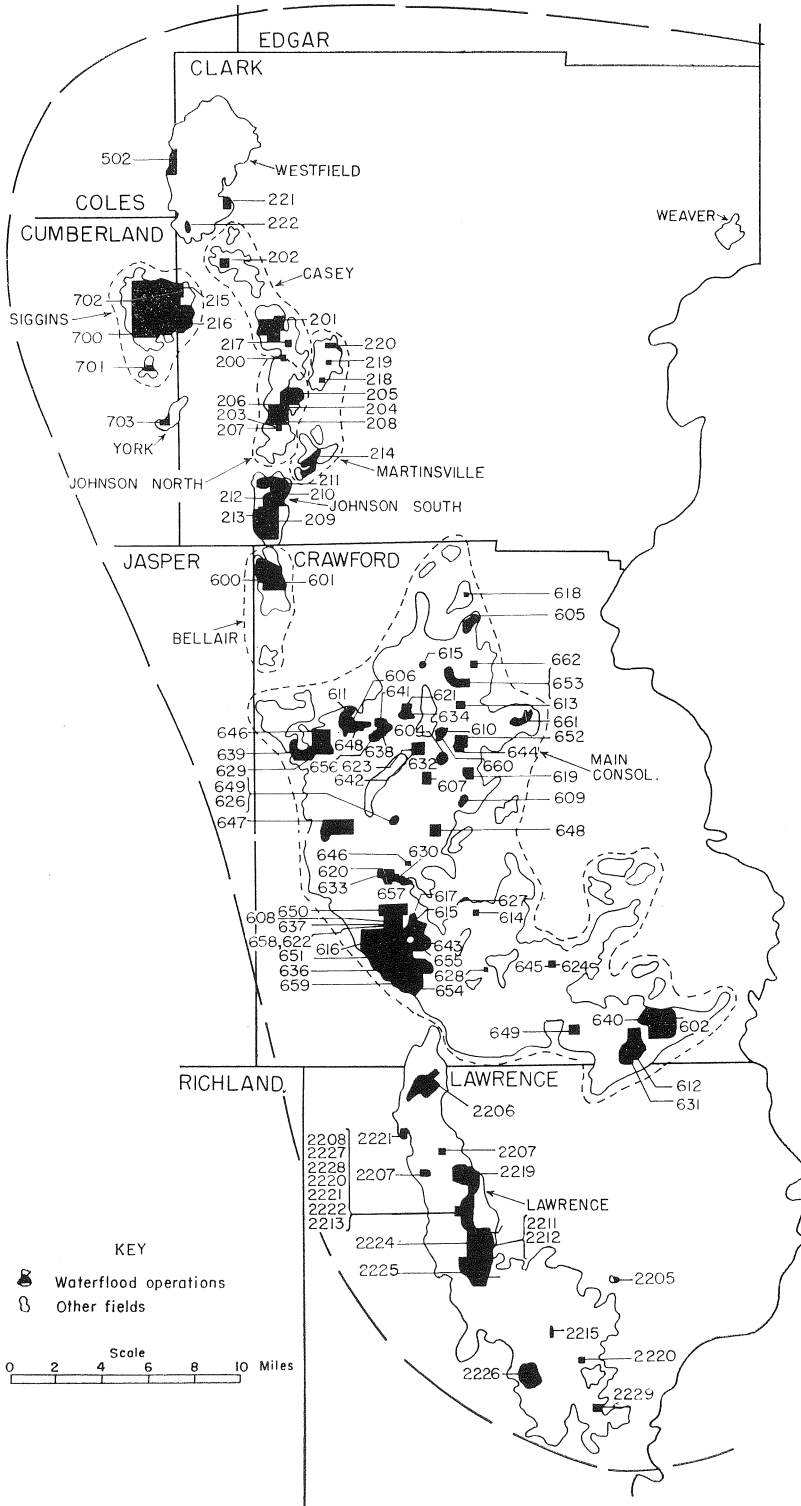


Fig. 7. — Detail of waterflood operations in Clark, Crawford, and Lawrence Counties.

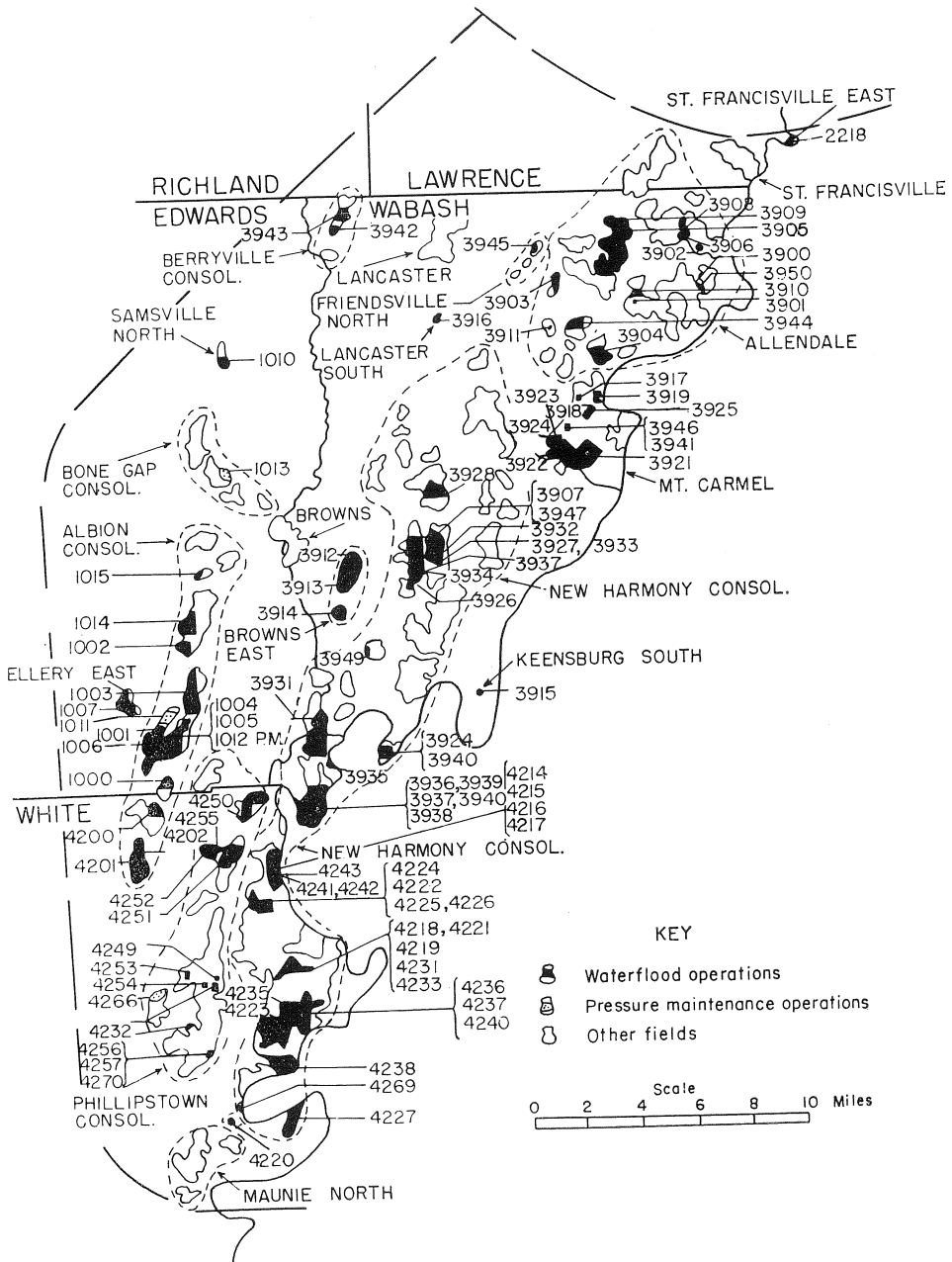


Fig. 8. — Detail of waterflood and pressure maintenance operations in Wabash, Edwards, and White Counties.

TABLE 13.—ILLINOIS WATERFLOOD PROJECTS

| Map No. | Field<br>C=Consolidated | Operator               | County    | Project<br>U=Unit           | Date first injection | General                        |
|---------|-------------------------|------------------------|-----------|-----------------------------|----------------------|--------------------------------|
|         |                         |                        |           |                             |                      | Formation                      |
| 4100    | Aden C                  | Horton*                | Wayne     |                             | 11-56                | Aux Vases                      |
| 4101    | Aden C                  | Texas                  | Wayne     | Aden                        | 8-46                 | Aux Vases                      |
| 4102    | Aden C                  | Texas                  | Wayne     | Aden                        | 8-46                 | McClosky                       |
| 4200    | Albion C                | Bristol*               | White     | Biehl U #1                  | 8-49                 | U. Biehl                       |
| 1000    | Albion C                | Bristol*               | Edwards   | Biehl U #2                  | 12-50                | U. Biehl                       |
| 1001    | Albion C                | Calvert                | Edwards   | S. Albion                   | 12-55                | U. Biehl                       |
| 4201    | Albion C                | Concho                 | White     | N. Crossville               | 10-52                | Cypress                        |
| 4202    | Albion C                | Concho                 | White     | N. Crossville               | 10-52                | Tar Springs                    |
| 1002    | Albion C                | Jarvis Bros. & Marcell | Edwards   | H. Wick                     | 7-51                 | McClosky                       |
| 1003    | Albion C                | Superior               | Edwards   | S. Albion S.R.P. #1         | 1-55                 | Biehl and Waltersburg          |
| 1004    | Albion C                | Superior               | Edwards   | S. Albion #2                | 8-56                 | Aux Vases                      |
| 1005    | Albion C                | Superior               | Edwards   | S. Albion #2*               | 8-56                 | Biehl                          |
| 1006    | Albion C                | Tidewater              | Edwards   | S. W. Albion<br>Biehl Sd. U | 5-56                 | Biehl                          |
| 3950    | Allendale               | Ashland                | Wabash    | Allendale                   | 9-55                 | Biehl                          |
| 3900    | Allendale               | Bass & Hamman*         | Wabash    | Gilliate                    | 11-54                | Biehl                          |
| 3901    | Allendale               | Bass & Hamman*         | Wabash    | White                       | 6-52                 | Biehl                          |
| 3902    | Allendale               | Bass & Hamman*         | Wabash    |                             |                      | Biehl                          |
| 3903    | Allendale               | Coon Creek*            | Wabash    |                             | 6-57                 | Biehl                          |
| 3904    | Allendale               | G. S. Engle*           | Wabash    | Patton                      | 53                   | Cypress                        |
| 3905    | Allendale               | Forest                 | Wabash    | Allendale                   | 6-55                 | Biehl & Jordan                 |
| 3906    | Allendale               | T. W. George*          | Wabash    |                             |                      | Biehl                          |
| 3908    | Allendale               | Ill. Oil*              | Wabash    | 2 projects                  | 10-57                | Biehl & Jordan                 |
| 3909    | Allendale               | Barron Kidd            | Wabash    | Allendale                   | 9-53                 | Biehl & Jordan                 |
| 3910    | Allendale               | Mattaland              | Wabash    | D. F. Mattaland             | 6-52                 | Biehl                          |
| 3911    | Allendale               | Westfall*              | Wabash    |                             |                      | Biehl                          |
| 100     | Assumption C            | Continental            | Christian | Benoist                     | 7-50                 | Benoist                        |
| 101     | Assumption C            | Continental            | Christian | Devonian*                   | 5-55                 | Devonian                       |
| 102     | Assumption C            | Continental            | Christian | Rosiclare                   | 6-55                 | Rosiclare                      |
| 4103    | Barnhill                | Ashland                | Wayne     | Barnhill                    | 1-51                 | McClosky                       |
| 4104    | Barnhill                | Wausau                 | Wayne     | Simpson                     | 10-56                | Aux Vases                      |
| 4105    | Barnhill                | Wausau                 | Wayne     | Simpson                     | 10-56                | Ohara                          |
| 4106    | Barnhill                | Wausau                 | Wayne     | Simpson                     | 9-57                 | Rosiclare                      |
| 400     | Bartelso                | T. R. Kerwin           | Clinton   | Belle Oil                   | 4-52                 | Cypress                        |
| 401     | Bartelso                | Robben Oil             | Clinton   | Robben U                    | 11-53                | Cypress                        |
| 402     | Bartelso                | H. S. Woodard          | Clinton   | H. S. Woodard               | 1-54                 | Cypress                        |
| 600     | Bellaire                | Forest                 | Crawford  | Bellaire                    | 7-48                 | Bellaire "500"                 |
| 601     | Bellaire                | Pure                   | Crawford  | Fulton                      | 7-48                 | Bellaire "500"                 |
| 1300    | Benton                  | Shell                  | Franklin  | Benton U                    | 11-49                | Tar Springs                    |
| 2000    | Boyd                    | Superior               | Jefferson | Boyd U                      | 8-54                 | Aux Vases                      |
| 2001    | Boyd                    | Superior               | Jefferson | Boyd U                      | 1-55*                | Benoist                        |
| 3912    | Browns E.               | T. W. George*          | Wabash    | Bellmont                    | 1-51                 | Cypress                        |
| 3913    | Browns E.               | Magnolia               | Wabash    | Bellmont                    | 11-47                | Cypress                        |
| 3914    | Browns E.               | Magnolia               | Wabash    | S. Belmont                  | 4-56                 | Cypress                        |
| 1500    | Bungay C                | Texas                  | Hamilton  | Blairsville U               | 6-48                 | Aux Vases                      |
| 3400    | Calhoun C               | Ashland                | Richland  | Calhoun                     | 9-51                 | McClosky                       |
| 3401    | Calhoun C               | Phillips               | Richland  | Bohlander U                 | 6-50                 | McClosky                       |
| 200     | Casey                   | F. A. Bridge*          | Clark     | States Oil                  | 1-54                 | Casey                          |
| 201     | Casey                   | Forest                 | Clark     | Casey                       | 3-50                 | Casey                          |
| 202     | Casey                   | D. W. Franchot         | Clark     | N. Casey                    | 12-53                | Casey                          |
| 4203    | Centerville E.          | Tekoil                 | White     | E. Centerville              | 3-56                 | Cypress                        |
| 4204    | Centerville E.          | Tekoil                 | White     | E. Centerville              | 5-56                 | Tar Springs                    |
| 403     | Centralia               | Morgan*                | Clinton   |                             |                      | Benoist                        |
| 404     | Centralia               | Shell                  | Clinton   | Centralia                   | 5-56                 | Ben. & Cyp.                    |
| 1900    | Clay City C             | Ashland                | Jasper    | Boos E.                     | 9-53                 | McClosky                       |
| 3402    | Clay City C             | Ashland                | Richland  | Noble N.                    | 7-54                 | McClosky                       |
| 300     | Clay City C             | Calvert                | Clay      | N. Clay City U              | 6-55                 | Rosiclare                      |
| 3403    | Clay City C             | Calvert                | Richland  | E. Noble U                  | 5-55                 | Rosiclare                      |
| 4107    | Clay City C             | Calvert                | Wayne     | Wilson                      | 4-55                 | Rosiclare                      |
| 4108    | Clay City C             | Tamarack Pet.*         | Wayne     |                             | 2-54                 | Rosiclare                      |
| 4109    | Clay City C             | F & W                  | Wayne     | Miller-Lambrich U           | 8-50                 | Ohara<br>Rosiclare<br>McClosky |

WATERFLOOD OPERATIONS

REPORTED OPERATING DURING 1957

| Information             |          |                      | Production and injection statistics (thousand bbls.) |            |                     |            |                     |            | Map No. |                     |
|-------------------------|----------|----------------------|--|------------|---------------------|------------|---------------------|------------|---------|---------------------|
| Location                |          | Curtailed during '57 | Secondary recovery                                   |            |                     |            |                     |            |         |                     |
| Sec.                    | T.-R.    |                      | Water injection                                      |            | Oil production      |            | Water production    |            |         |                     |
|                         |          | Inj.                 | Prod.  | Total 1957 | Cumulative 12-31-57 | Total 1957 | Cumulative 12-31-57 | Total 1957 |         | Cumulative 12-31-57 |
| 34                      | 2S- 7E   |                      |  |            |                     |            |                     |            |         | 4100                |
| 8, 9, 16, 17, 20        | 3S- 7E   |                      |  | 587        | 3,527               | 88.6       | 735                 | 1,121      | 3,169*  | 4101                |
| 8, 9, 16, 17, 20        | 3S- 7E   |                      |  | 662        | 3,797               | 58.4       | 473                 | *          | *       | 4102                |
| 22, 23                  | 3S-10E   |                      |  | 702        | 4,032§              | 75.2       | 1,057‡              | 222        | 512‡    | 4200                |
| 23                      | 3S-10E   |                      |  | 431        | 2,385§              | 32.6       | 510‡                | 203        | 619‡    | 1000                |
| 1, 2                    | 3S-10E   | x                    |  | 175        | 317                 | 73.1       | 106                 | 33         | 53      | 1001                |
| 26, 27, 34, 35          | 3S-10E   |                      |  | 529        | 3,019               | 31.5       | 290                 | 274        | 1,003   | 4201                |
| 26, 27, 34, 35          | 3S-10E   |                      |  | 136        | 690                 | 7.0        | 53                  | 12         | 57      | 4202                |
| 24                      | 2S-10E   |                      |  | 70         | 239†                | 1.1*       | 1*                  | 2*         |         | 1002                |
| 25, 36                  | 2S-10E   | x                    |  | 373        | 1,287               | 124.2      | 344                 | 168        | 425     | 1003                |
| 3, 31                   | 2S-11E   |                      |  |            |                     |            |                     |            |         |                     |
| 1, 2, 11, 12            | 3S-10E   | x                    |  | 177        | 251                 | *          | *                   | *          | *       | 1004                |
| 1, 2, 11, 12            | 3S-10E   | x                    |  | 279        | 383                 | 97.2       | 98‡                 | 341        | 558‡    | 1005                |
| 2, 11, 14               | 3S-10E   | x                    |  | 873        | 1,391               | 320.4      | 388*                | 351        | 411     | 1006                |
| 13                      | 1N-12W   |                      |  | 35         | 85                  | 13.4       | 37*                 |            |         | 3950                |
| 13                      | 1N-12W   |                      |  |            |                     |            |                     |            |         | 3900                |
| 22                      | 1N-12W   |                      |  |            |                     |            |                     |            |         | 3901                |
| 7                       | 1N-11W   |                      |  |            |                     |            |                     |            |         | 3902                |
| 7                       | 1N-12W   |                      |  |            |                     |            |                     |            |         | 3903                |
| 28                      | 1N-12W   |                      |  |            |                     |            |                     |            |         | 3904                |
| 3, 4, 9, 10             | 1N-12W   |                      |  | 3,470      | 8,797               | 202.7      | 591*                |            |         | 3905                |
| 36                      | 2N-12W   |                      |  |            |                     |            |                     |            |         | 3906                |
| 1                       | 1N-12W   |                      |  |            |                     |            |                     |            |         |                     |
| 23, 26, 35              | 2N-12W   |                      |  |            |                     |            |                     |            |         | 3908                |
| 3                       | 1N-12W   |                      |  | 667        | 1,761               | 30.1       | 148                 | 542        | 1,033   | 3909                |
| 15                      | 1N-12W   |                      |  |            |                     |            |                     |            |         | 3910                |
| 19                      | 1N-12W   |                      |  |            |                     |            |                     |            |         | 3911                |
| 3, 4, 9, 10, 15, 16, 21 | 13N- 1E  |                      |  | 819        | 5,729               | 104.9      | 963                 | 285        | 1,757   | 100                 |
| 9                       | 13N- 1E  |                      |  | 258        | 683                 | 53.7       | 66                  | 23         | 27      | 101                 |
| 9, 10                   | 13N- 1E  |                      |  | 81         | 196                 | 78.8       | 134                 | 56         | 98      | 102                 |
| 26, 34, 35              | 2S- 8E   |                      |  | 845        | 4,815*              | 60.7       | 973                 |            |         | 4103                |
| 27                      | 2S- 8E   |                      |  | 54         | 63                  | 3.0        | 3                   | 1          | 1       | 4104                |
| 27                      | 2S- 8E   | x                    | x  | 43         | 53                  | 6.8        | 7                   | 1          | 2       | 4105                |
| 27                      | 2S- 8E   |                      |  | 14         | 14                  | None       | None                | None       | None    | 4106                |
| 4                       | 1N- 3W   |                      |  | 114        | 710                 | 8.9        | 118*                | 50         |         | 400                 |
| 4                       | 1N- 3W   |                      |  | 509        | 1,690               | 93.9       | 515*                | 295        | 599     | 401                 |
| 5, 8                    | 1N- 3W   |                      |  | 288        | 968                 | 52.2       | 207*                | 216        | 544     | 402                 |
| 2, 11, 12               | 8N-14W   |                      |  | 1,488      | 15,703              | 42.6       | 584                 |            |         | 600                 |
| 1, 2, 11, 12            | 8N-14W   |                      |  | 3,695      | 36,210              | 75.4       | 1,029               | 2,066      | 15,115  | 601                 |
| 23 to 26, 35, 36        | 6S- 2E   |                      |  | 10,852     | 84,981              | 755.1      | 13,077*             | 9,386      | 44,637  | 1300                |
| 18, 30, 31              | 6S- 3E   |                      |  |            |                     |            |                     |            |         |                     |
| 18, 19, 20, 30          | 1S- 2E   |                      |  | 1,209      | 13,684              | *          | *                   | *          | *       | 2000                |
| 13, 24, 25              | 1S- 3E   |                      |  |            |                     |            |                     |            |         |                     |
| 18, 19, 20, 30          | 1S- 2E   |                      |  | 4,817      | 13,822              | 381.3      | 848‡                | 3,869      | 9,230‡  | 2001                |
| 13, 24, 25              | 1S- 3E   |                      |  |            |                     |            |                     |            |         |                     |
| 1, 2, 11, 12            | 2S-14W   |                      |  |            |                     |            |                     |            |         | 3912                |
| 2, 11                   | 2S-14W   | x                    |  | 33         | 801                 | 10.1       | 561*                | 33         | 252     | 3913                |
| 11, 14                  | 2S-14W   | x                    |  | 218        | 368                 | 62.9       | 78*                 | 18         | 20      | 3914                |
| 16, 17, 20, 21          | 4S- 7E   |                      |  | 1,146      | 5,725               | 117.5      | 590                 | 253        | 978     | 1500                |
| 7, 18, 13               | 2N-9&10E |                      |  | 274        | 1,262*              | 11.2‡      | 108‡                |            |         | 3400                |
| 6, 7                    | 2N-10E   | x                    | x  | 242        | 1,945               | 13.0       | 224                 | 234        | 1,463   | 3401                |
| 26                      | 10N-14W  |                      |  |            |                     |            |                     |            |         | 200                 |
| 14, 15, 23              | 10N-14W  |                      |  | 533        | 5,841               | 28.8       | 391                 | *          | *       | 201                 |
| 4                       | 10N-14W  |                      |  | 178        | 789                 | None       | None                |            |         | 202                 |
| 33                      | 11N-14W  |                      |  |            |                     |            |                     |            |         |                     |
| 18                      | 4S-10E   | x                    | x  | 156        | 389*                | 73.8       | 135                 |            |         | 4203                |
| 18                      | 4S-10E   | x                    | x  | 182        | 265                 | *          | *                   |            |         | 4204                |
| 35                      | 2N- 1W   |                      |  |            |                     |            |                     |            |         | 403                 |
| 1, 2, 12, 35, 36        | 1N- 1W   |                      | x  | 4,615      | 7,429               | 1,728.6    | 1,864               | 852        | 1,014   | 404                 |
|                         | 6N-10E   |                      |  | 40         | 209*                | 3.4        | 15                  |            |         | 1900                |
| 35                      | 4N- 9E   |                      |  | 40*        | 250*                | 2.6‡       | 6‡                  |            |         | 3402                |
| 5, 8                    | 3N- 8E   | x                    | x  | 219        | 503                 | 20.0       | 51*                 | 96         | 169     | 300                 |
| 2, 10, 11               | 3N- 9E   |                      |  | 328        | 881                 | 25.1       | 44*                 | 170        | 314     | 3403                |
| 15                      | 1S- 8E   |                      |  | 18*        | 137*                | 3.0        | 7‡                  |            |         | 4107                |
| 22                      | 2N- 8E   | x                    | x  | 117‡       | 382‡                | 11.9       | 67                  | 117‡       | 382‡    | 4108                |
| 29                      | 1N- 8E   |                      |  | *          | *                   | 8.0        | 120                 |            |         | 4109                |

TABLE 13. —

| Map No. | Development as of 12-31-57 |       |                   |                              |                                   |                     | Injection water                                 |                            |                                    |                            |
|---------|----------------------------|-------|-------------------|------------------------------|-----------------------------------|---------------------|---|----------------------------|------------------------------------|----------------------------|
|         | No. of wells               |       | Injection pattern | Spacing acres per input well | Productive acreage                |                     | Source<br>Sd=Sand<br>Gr=Gravel<br>Prod=Produced | Type<br>F=Fresh<br>B=Brine | Av. bbls. per day per well per ft. | Av. well-head pressure PSI |
|         | Inj.                       | Prod. |                   |                              | Sub-jected to inj.                | Total               |   |                            |                                    |                            |
| 4100    | 13                         | 16    | Perimeter         |                              | 640                               | 1,050               | Penn. Sd & Prod                                 | B                          | 12.4                               | 1,392                      |
| 4101    | 12                         | 15    | Perimeter         |                              | 560                               | 920                 | Penn. Sd & Prod                                 | B                          | 42.0                               | 1,315                      |
| 4200    | 2                          | 10    | Flank             |                              | 220                               | 220                 | River & Prod                                    | F & B                      | 56.5                               | 1,165                      |
| 1000    | 2                          | 5     | Flank             |                              | 90                                | 90                  | River & Prod                                    | F & B                      | 26.8                               | 1,024                      |
| 1001    | 2                          | 6     | Perimeter         | 10                           | 110                               | 130                 | Penn. Sd  | B                          | 13.3                               | 438                        |
| 4201    | 8                          | 21    | Perimeter         | 10                           | 250                               | 300                 | River & Prod                                    | F & B                      | 15.1                               | 1,500                      |
| 4202    | 4                          | 5     | 5 - Spot          | 10                           | 100                               | 100                 | River & Prod                                    | F & B                      | 15.5                               | 1,500                      |
| 1002    | 1                          | 1     |                   |                              | 10                                | 140                 |   | B                          | 6.4                                |                            |
| 1003    | 6                          | 21    | Flank             |                              | 222                               | 222                 | Gr Bed & Prod                                   | F & B                      | 8.8                                | 1,173                      |
|         |                            |       |                   |                              | 325                               | 325                 |   |                            |                                    |                            |
| 1004    | 6                          | 11    | 5-Spot            | 20                           | 243                               | 243                 | Gr Bed & Prod                                   | F & B                      | 8.1                                | 1,402                      |
| 1005    | 3                          | 4     |                   |                              | 79                                | 79                  | Gr Bed & Prod                                   | F & B                      | 6.0                                | 631                        |
| 1006    | 18                         | 18    | 5-Spot            | 20                           | 710                               | 710                 | Shallow Sd & Prod                               | F & B                      | 8.3                                | 305                        |
| 3950    | 1                          | 2     |                   |                              | 20                                | 20                  | Penn. Sd  | B                          | 6.4                                | 220                        |
| 3900    |                            |       |                   |                              |                                   |                     |   |                            |                                    |                            |
| 3901    |                            |       |                   |                              |                                   |                     |   |                            |                                    |                            |
| 3902    |                            |       |                   |                              |                                   |                     |   |                            |                                    |                            |
| 3903    |                            |       |                   |                              |                                   |                     |   |                            |                                    |                            |
| 3904    |                            |       |                   |                              |                                   |                     |   |                            |                                    |                            |
| 3905    | 25                         | 24    | Mod. 5-Spot       | 25                           | 300                               |                     | Gr Bed & Prod                                   | F & B                      | 13.6                               | 828                        |
| 3906    |                            |       |                   |                              |                                   |                     |   |                            |                                    |                            |
| 3908    |                            |       |                   |                              |                                   |                     |   |                            |                                    |                            |
| 3909    | 3                          | 4     |                   | 20                           | 70                                | 75                  | Upper Sd  | F                          | 16.3                               |                            |
| 3910    |                            |       |                   |                              | 44                                | 44                  |   |                            |                                    |                            |
| 3911    |                            |       |                   |                              |                                   |                     |   |                            |                                    |                            |
| 100     | 14                         | 25    | Perimeter         |                              | 450                               | 450                 | Creek & Prod                                    | F & B                      | 12.6                               | 917                        |
| 101     | 4                          | 8     | 5-Spot            |                              | 140                               | 140                 | Creek & Prod                                    | F & B                      | 13.6                               | 194                        |
| 102     | 1                          | 9     | Line Drive        |                              | 80                                | 100                 | Creek & Prod                                    | F & B                      | 18.4                               | 312                        |
| 4103    | 8                          | 16    | Irregular         |                              | 260                               | 320                 | Cypress   | B                          | 32.2                               | *                          |
| 4104    | 1*                         | 4     |                   |                              | 40                                | 160                 | Penn. Sd  | F & B                      | 10.6                               | 438                        |
| 4105    | 1*                         | 4     |                   |                              | 40                                | 70                  | Penn. Sd  | F & B                      | 14.8                               | 428                        |
| 4106    | 1                          | 2     |                   |                              | 30                                | 30                  | Penn. Sd  | F & B                      | 24.4                               | None                       |
| 400     | 5                          | 5     | 5-Spot            | 5                            | 40                                | 40                  | Tar Springs                                     | B                          | 4.2                                | 550                        |
| 401     | 12                         | 19    | 5-Spot            | 10                           | 200                               | 200                 | Bethel  | B                          | 9.7                                | 550                        |
| 402     | 5                          | 9     | 5-Spot            | 10                           | 80                                | 75                  | Bethel & Prod                                   | F                          | 10.5                               | 550                        |
| 600     | 56                         | 51    | 5-Spot            | 4.4                          | 200                               |                     | Gr Bed  | B                          | 1.9                                | 285                        |
| 601     | 131                        | 125   | 5-Spot            | 4.4                          | 443                               | 443                 | Gr Bed  | F                          | 3.7                                | 280                        |
| 1300    | 109                        | 120   | 5-Spot            | 20                           | 2,200                             | 2,200               | Lake & Prod                                     | F & B                      | 7.8                                | 486                        |
| 2000    | 12                         | *     | Peripheral        |                              | 569                               | 569                 | Lake & Prod                                     | F & B                      | 23.2                               | 525                        |
| 2001    | 8                          | 69    | Peripheral        |                              | 1,554                             | 1,564               | Lake & Prod                                     | F & B                      | 95.3                               | 868                        |
| 3912    |                            |       |                   |                              |                                   |                     |   |                            |                                    |                            |
| 3913    | 6                          | 8     | Line Drive        | 10                           | 169                               | 190                 | Tar Springs & Prod                              | B                          |                                    |                            |
| 3914    | 5                          | 8     | 5-Spot            | 20                           | 75                                | 130                 | Shallow Sd & Prod                               | F & B                      |                                    |                            |
| 1500    | 10                         | 12    |                   | 20                           | 640                               | 640                 | Penn. Sd & Prod                                 | B                          | 2.0                                | 1,351                      |
| 3400    | 3                          | 7     | Irregular         |                              | 140                               | 195                 | Cypress   | B                          | 41.7                               |                            |
| 3401    | 3                          | 8     | Irregular         | 20                           | 160                               | 280                 | Penn. & Prod                                    | B                          | 22.1                               | 1,346                      |
| 200     |                            |       |                   |                              |                                   |                     |   |                            |                                    |                            |
| 201     | 76                         | 66    | 5-Spot            | 4.4                          | 280                               |                     | Gr & Prod                                       | F & B                      | 1.9                                | 236                        |
| 202     | 15                         | 10    | 5-Spot            | 4.4                          | 40                                | 560                 | Gr Bed & River                                  | F                          | 1.6                                |                            |
| 4203    | 5                          | 22    | 5-Spot            | 10                           | 130                               | 280                 | Palestine Sd                                    | B                          | 5.7                                | 1,153                      |
| 4204    | 3                          | 22    | 5-Spot            | 10                           | 130                               | 280                 | Palestine Sd                                    | B                          | 20.8                               | 811                        |
| 403     |                            |       |                   |                              |                                   |                     |   |                            |                                    |                            |
| 404     | 103                        | 113   | 5-Spot            | 20                           | Cyp-850<br>L.Cyp-270<br>Ben-1,300 | 850<br>270<br>1,500 | Devonian & Prod                                 | B                          | 3.2                                | 200                        |
| 1900    | 2                          | 4     | Flank             |                              | 40                                | 80                  | Prod & River Gr                                 | F & B                      | 6.9                                |                            |
| 3402    | 1                          | 1     |                   |                              | 20                                | 40                  | Cypress   | B                          | 21.7                               | 204                        |
| 300     | 2                          | 8     | Peripheral        | 20                           | 460                               | 460                 | Cypress   | B                          | 60.0                               |                            |
| 3403    | 2                          | 13    | Peripheral        | 20                           | 280                               | 280                 | Cypress   | B                          | 20.4                               |                            |
| 4107    | 1                          | 1     | Peripheral        | 20                           | 40                                | 40                  | Cypress   | B                          | 5.5                                |                            |
| 4108    | 1                          | 2     |                   | 20                           | 60                                |                     | Prod  | B                          | 32.2                               |                            |
| 4109    | 4                          | 4     | Irregular         | 10                           | 120                               | 180                 | Cyp. & Prod                                     | B                          |                                    |                            |

# WATERFLOOD OPERATIONS

(Continued)

| Reservoir statistics (average values) |                        |                   |                          |                 |                           | Remarks  | Map No. |
|---------------------------------------|------------------------|-------------------|--------------------------|-----------------|---------------------------|--|---------|
| Depth feet                            | Net pay thickness feet | Porosity per cent | Permeability millidarcys | Oil gravity API | Oil viscosity centipoises |  |         |
| 3,200                                 | 10.0                   | 22.0              | 150                      | 35.4            |                           | *No data available.  | 4100    |
| 3,350                                 | 3.6                    |                   |                          | 35.4            | 6.5 @ 100°F               | *Includes Aden McClosky water production.  | 4101    |
| 1,950                                 | 17.0                   | 20.2              | 265                      | 38.0            | 5.3 @ 90°F                | *Water production included with Aden Aux Vases flood.  | 4102    |
|                                       |                        |                   |                          |                 |                           | *Previously operated by S.C. Yingling. †Since 1-1-55.  | 4200    |
|                                       |                        |                   |                          |                 |                           | ‡Includes primary production since start of flood.   |         |
|                                       |                        |                   |                          |                 |                           | §Corrected figure.   |         |
| 1,450                                 | 22.0                   | 19.3              | 303                      | 35.8            | 6.0 @ 84°F                | †Since 1-1-55. ‡Includes primary production since start of flood.  | 1000    |
| 2,075                                 | 18.0                   | 20.0              | 200                      | 33.4            |                           | *Includes primary production since start of flood.   | 1001    |
| 2,850                                 | 12.0                   | 18.0              |                          | 37.0            |                           |  | 4201    |
| 2,460                                 | 6.0                    | 18.0              |                          | 37.0            |                           |  | 4202    |
| 3,150                                 | 30.0                   |                   |                          | 37.0            |                           | *Estimated production from only well stimulated. †Excluding 1-55 to 12-56.   | 1002    |
| 2,025                                 | 7.1                    | 18.5              | 807                      | 36.0            | 5.4 @ 85°F                |  | 1003    |
| 2,400                                 | 12.3                   |                   | 74                       |                 | 4.7 @ 90°F                |  |         |
| 2,550                                 | 10.0                   | 20.6              | 53                       | 37.5            | 4.3 @ 98°F                | *Included in Biehl production since 8-1-56.  | 1004    |
| 1,485                                 | 15.8                   | 18.2              | 326                      | 37.3            | 4.5 @ 84°F                | *Previously abandoned, reinstated as an active flood during 1956. †Corrected figure.   | 1005    |
| 1,805                                 | 16.0                   | 18.0              | 150                      | 32.2            |                           | *Includes primary production since start of flood.   | 1006    |
| 1,475                                 | 15.0                   |                   |                          | 36.0            |                           | *Includes primary production since start of flood.   | 3950    |
| 1,490                                 | 17.0                   |                   |                          |                 |                           | *No 1957 data available.   | 3900    |
| 1,450                                 | 17.0                   |                   |                          |                 |                           | *No 1957 data available.   | 3901    |
|                                       |                        |                   |                          |                 |                           | *No data available.  | 3902    |
|                                       |                        |                   |                          |                 |                           | *No data available.  | 3903    |
| 2,000                                 | 16.0                   |                   |                          | 34.8            |                           | *No 1957 data available.   | 3904    |
| 1,500                                 | B-15.0                 | 17.7              | 390                      | 37.0            | 12.3 @ 60°F               | *Includes primary production since acquisition for water flooding.   | 3905    |
|                                       | J-13.0                 | 14.9              | 100                      |                 |                           |  |         |
| 1,490                                 | 32.0                   | 16.5              | 600                      | 37.0            | 7.6 @ 79°F                | *No data available.  | 3906    |
| 1,385                                 | 15.0                   |                   |                          |                 |                           | *No data available.  | 3908    |
|                                       |                        |                   |                          |                 |                           |  | 3909    |
|                                       |                        |                   |                          |                 |                           |  | 3910    |
|                                       |                        |                   |                          |                 |                           |  | 3911    |
| 1,050                                 | 12.7                   | 19.4              | 103                      | 39.8            |                           |  | 100     |
| 2,280                                 | 13.0                   | 12.0              |                          | 39.3            | 1.8 @ 88°F                | *Pilot flood.  | 101     |
| 1,150                                 | 12.0                   | 22.0              | 561                      | 39.3            | 2.6 @ 78°F                |  | 102     |
| 3,350                                 | 9.0                    |                   |                          | 39.0            |                           |  | 103     |
| 3,253                                 | 14.0                   | 18.7              | 42                       | 38.0            | 7 @ 85°F                  | *Cumulative to 12-31-56 was a controlled dump flood.   | 4103    |
|                                       |                        |                   |                          |                 |                           | *Dual injection well.  | 4104    |
| 3,323                                 | 8.0                    | 20.1              | 108                      | 39.0            |                           | *Dual injection well.  | 4105    |
| 3,365                                 | 5.0                    |                   |                          | 40.0            | 6 @ 78°F                  |  | 4106    |
| 971                                   | 15.0                   | 22.2              | 165                      | 37.0            | 6.3 @ 71°F                | *Includes primary production since start of flood.   | 400     |
| 980                                   | 12.0                   | 20.0              | 110                      | 36.9            | 6.3 @ 71°F                | *Includes primary production since start of flood.   | 401     |
| 970                                   | 15.0                   | 21.0              | 210                      | 36.0            |                           | *Includes primary production since start of flood.   | 402     |
| 550                                   | 38.0                   | 17.1              | 148                      | 32.4            | 16 @ 77°F                 | Previously subjected to gas injection.   | 600     |
| 560                                   | 21.0                   | 18.6              | 149                      | 32.0            | 18.7 @ 77°F               | Previously subjected to gas injection.   | 601     |
| 2,100                                 | 35.0                   | 19.0              | 65                       | 40.4            | 3.5 @ 86°F                | *Total oil production, cumulative to 12-31-56. Corrected to properly reflect total oil production since injection commenced. | 1300    |
| 2,130                                 | 11.9                   | 21.4              | 240                      | 36.8            | 4.4 @ 90°F                | *Included with Boyd Field Unit, Benoist. Previously used for gas storage.  | 2000    |
| 2,065                                 | 17.3                   | 17.5              | 173                      | 39.5            | 3.2 @ 90°F                | *Pressure maintenance 6-45 to 1-55. Includes Aux Vases. †Since 1-1-55.   | 2001    |
| 2,570                                 | 13.0                   |                   |                          | 36.0            | 4.6 @ 90°F                | *No 1957 data available.   | 3912    |
| 2,570                                 |                        |                   |                          |                 |                           | *Includes primary production since start of flood.   | 3913    |
| 2,560                                 |                        |                   |                          |                 |                           | *Includes primary production since start of flood.   | 3914    |
| 3,330                                 | 15.5                   | 19.6              | 92                       | 37.5            | 1.8 @ 99°F                |  | 1500    |
| 3,150                                 | 6.0                    |                   |                          | 37.0            |                           | *Dump flood. ‡Includes primary production since start of flood.  | 3400    |
| 3,130                                 | 10.0                   | 11.2              | 68                       | 39.0            |                           |  | 3401    |
| 444                                   | 20.0                   |                   |                          |                 |                           | *No 1957 data available.   | 200     |
| 450                                   | 10.0                   | 17.4              | 173                      | 31.9            | 16.6 @ 70°F               | Previously subjected to gas injection.   | 201     |
| 290                                   | 20.0                   | 21.5              | 400                      | 26.6            | 50.0 @ 60°F               | *Negligible.   | 202     |
| 2,845                                 | 15.0                   | 15.4              | 12                       | 36.2            | 3.4 @ 110°F               | *Corrected figure.   | 4203    |
| 2,460                                 | 8.0                    | 15.9              | 98                       | 35.0            | 4.1 @ 105°F               | *Included in Cypress production.   | 4204    |
|                                       |                        |                   |                          |                 |                           | *No data available.  | 403     |
| C-1,200                               | C-10.0                 | 19.3              | 74                       | 38.0            |                           |  | 404     |
| B-1,350                               | L,C.-9.0               | 21.1              | 225                      |                 |                           |  |         |
|                                       | B-19.0                 | 19.6              | 186                      |                 |                           |  |         |
| 2,645                                 | 8.0                    |                   |                          | 40.0            | 3.2 @ 75°F                | *Injection shut down from 12-55 to 5-57.   | 1900    |
| 3,000                                 | 5.0                    |                   |                          | 38.0            |                           | *Controlled dump flood. ‡Includes primary production since start of flood. †Corrected figure.                                | 3402    |
| 3,010                                 | 5.0                    |                   |                          | 36.4            |                           | *Includes 1956 primary production.   | 300     |
| 2,950                                 | 11.0                   |                   |                          | 38.0            |                           | *Includes 1956 primary production.   | 3403    |
| 3,159                                 | 10.0                   |                   |                          |                 |                           | *Estimated injection. ‡Includes primary production from 4-55 to 12-55.   | 4107    |
| 3,033                                 | 15.0                   |                   |                          |                 |                           | *Formerly Demier. †Data adjusted from 1956 values.   | 4108    |
| 3,050                                 | 5.0                    |                   |                          |                 |                           | *Dump flood.   | 4109    |



TABLE 13.—

| Map No. | General                 |                     |                      |                      |                         |                            |
|---------|-------------------------|---------------------|----------------------|----------------------|-------------------------|----------------------------|
|         | Field<br>C=Consolidated | Operator            | County               | Project<br>U=Unit    | Date first<br>injection | Formation                  |
| 4110    | Clay City C             | General American    | Wayne                | Covington U          | 6-55                    | Ste. Genevieve             |
| 4111    | Clay City C             | T. W. George*       | Wayne                |                      |                         | Aux Vases                  |
| 301     | Clay City C             | Phillips            | Clay                 | Minnie Lease         | 7-53                    | Rosiclare                  |
| 302     | Clay City C             | Pure                | Clay &<br>Wayne      | Banker School        | 1-57                    | Cypress                    |
| 3404    | Clay City C             | Pure                | Richland             | Old Noble            | 8-54                    | McClosky                   |
| 3405    | Clay City C             | Pure                | Richland             | S. Noble             | 8-57                    | McClosky                   |
| 3406    | Clay City C             | Pure                | Richland &<br>Wayne  | S. W. Noble          | 8-57                    | Rosiclare                  |
| 4112    | Clay City C             | Pure                | Wayne                | Jordan School        | 10-55                   | Aux Vases                  |
| 4113    | Clay City C             | Pure                | Wayne                | N. E. Jordan School* | 10-56                   | Aux Vases                  |
| 4114    | Clay City C             | Pure                | Wayne                | Van Fossan U         | 1-53                    | McClosky                   |
| 1901    | Clay City C             | Robinson & Puckett  | Jasper               | N. E. McCl. #1       | 5-53                    | McClosky                   |
| 1902    | Clay City C             | Robinson & Puckett  | Jasper               | S. W. McCl. #2       | 5-53                    | McClosky                   |
| 4115    | Clay City C             | Robinson & Puckett  | Wayne                | N. Puckett U         | 1-56                    | Aux Vases                  |
| 4116    | Clay City C             | Robinson & Puckett  | Wayne                | S. Puckett #1        | 8-54                    | Aux Vases                  |
| 4117    | Clay City C             | Shakespeare         | Wayne                | E. Banker School     | 1-57                    | Cypress                    |
| 4118    | Clay City C             | Shakespeare         | Wayne                | E. Geff U*           | 1-57                    | Aux Vases                  |
| 4119    | Clay City C             | Toklan              | Wayne                |                      | 2-55                    | Aux Vases                  |
| 4205    | Concord                 | Barron Kidd         | White                | Kerwin-Concord*      | 1-55                    | McClosky                   |
| 4206    | Concord                 | Phillips            | White                | Kerwin Lease         | 2-53                    | Rosi. & McCl.              |
| 4207    | Concord                 | Phillips            | White                | Tuley Lease          | 7-51                    | McClosky                   |
| 4208    | Concord N.              | C. E. Brehm         | White                | Concord N.           | 12-52                   | Aux Vases                  |
| 4000    | Cordes                  | Shell               | Washington           | Cordes Coop.*        | 8-50                    | Benoist                    |
| 4120    | Covington S.            | General American    | Wayne                | Heidinger-Vogel      | 11-57                   | McClosky                   |
| 1501    | Dale C                  | Inland Producers    | Hamilton             | N. Rural Hill U      | 2-52                    | Aux Vases                  |
| 1502    | Dale C                  | Phillips            | Hamilton             | Cantrell U           | 8-55                    | Aux Vases                  |
| 1503    | Dale C                  | Phillips            | Hamilton &<br>Saline | West End U           | 1-56                    | Aux Vases                  |
| 1504    | Dale C                  | Texas               | Hamilton             | W. Dale U            | 7-51                    | Aux Vases                  |
| 2002    | Divide E.               | Gulf                | Jefferson            | Holloway             | 5-55                    | McClosky                   |
| 1903    | Dundas E.               | Gulf                | Jasper               | Bessie               | 5-54                    | McClosky                   |
| 3407    | Dundas E.               | Gulf                | Richland             | E. Dundas U          | 10-56                   | McClosky                   |
| 1934    | Dundas E.               | Sohio               | Jasper               | Dundas E.*           | 4-55                    | Ohara                      |
| 1097    | Ellery E.               | Herndon             | Edwards              |                      | 12-57                   | A. V. & Ohara              |
| 4209    | Enfield S.              | Ryan                | White                | S. Enfield U #2      | 9-56                    | McClosky                   |
| 1301    | Frankfort W.            | Shell               | Franklin             | W. Frankfort         | 11-57                   | Tar Springs                |
| 4123    | Goldengate C            | Cities Service      | Wayne                | Goldengate           | 8-56                    | Rosi. & Ohara              |
| 4124    | Goldengate C            | Cities Service      | Wayne                | Kletzker U           | 8-56                    | Aux Vases                  |
| 3690    | Harco                   | Phillips            | Saline               | Noble "A"            | 6-57                    | Aux Vases                  |
| 4210    | Herald C                | C. E. Brehm         | White                | Herald W.            | 1-55                    | Waltersburg                |
| 1405    | Herald C                | Calvert             | Gallatin             | Cottonwood N.        | 12-57                   | Cypress                    |
| 4211    | Herald C                | Mabee-Allen         | White                | Ackerman U           | 2-56                    | Aux Vases                  |
| 4212    | Herald C                | O. B. Mitchell      | White                | Bayley U             | 9-57                    | Cypress                    |
| 1101    | Hill E.                 | Partlow & Cochonour | Effingham            | Cypress              | 10-57                   | Cypress                    |
| 320     | Ingraham                | Carter              | Clay                 | Ingraham             | 12-56                   | Rosiclare                  |
| 1406    | Inman E. C              | Carter              | Gallatin             | Big Barn             | 4-54                    | U. Cypress                 |
| 1407    | Inman E. C              | Carter              | Gallatin             | Kerwin-Craw.         | 6-55                    | Chester                    |
| 1408    | Inman E. C              | Carter              | Gallatin             | West U               | 7-56                    | Waltersburg<br>Cypress     |
| 1409    | Inman E. C              | Natural Resources   | Gallatin             | Big Barn             | 3-54                    | Hardinsburg<br>Tar Springs |
| 1410    | Inman E. C              | Natural Resources   | Gallatin             | Big Barn             | 3-54                    | Cypress                    |
| 1411    | Inman E. C              | Sun                 | Gallatin             | Inman East           | 3-54                    | Tar Springs                |
| 1400    | Inman W. C              | Ferral*             | Gallatin             |                      |                         | Aux Vases                  |
| 1401    | Inman W. C              | Gallagher           | Gallatin             | Bradley U            | 10-57                   | Biehl                      |
| 1402    | Inman W. C              | Gulf                | Gallatin             | W. Inman U           | 5-55                    | Cypress                    |
| 1403    | Inman W. C              | Gulf                | Gallatin             | W. Inman U           | 3-57                    | Tar Springs                |
| 1404    | Inman W. C              | Phillips            | Gallatin             | Leverit              | 5-57                    | Cypress                    |
| 303     | Iola                    | Tidewater           | Clay                 | Cora Davis           | 10-57                   | Bethel & A.V.              |
| 304     | Iola                    | Tidewater           | Clay                 | Dee & Heirs          | 10-57                   | Bethel & A.V.              |
| 4001    | Irvington               | Kapp*               | Washington           |                      |                         | Cypress                    |
| 4002    | Irvington               | Mazzarino*          | Washington           |                      |                         | Cypress                    |
| 203     | Johnson N.              | Bass & Hamman*      | Clark                | N. Johnson           | 1-53                    | Casey                      |
| 204     | Johnson N.              | C. L. McMahon*      | Clark                | Block "A"            | 4-49                    | Casey                      |





(Continued)

| Reservoir statistics (average values) |                        |                   |                          |                 |                           | Remarks   | Map No.      |
|---------------------------------------|------------------------|-------------------|--------------------------|-----------------|---------------------------|---|--------------|
| Depth feet                            | Net pay thickness feet | Porosity per cent | Permeability millidarcys | Oil gravity API | Oil viscosity centipoises |   |              |
| 3,200                                 | 14.0                   |                   |                          | 39.0            |                           |   | 4110         |
| 2,990                                 | 30.0                   | 14.0              | 2,000                    | 38.5            |                           | *No data available.<br>*Previously affected by dump flood. Surface injection began 7-53.          | 4111<br>301  |
| 2,639                                 | 15.0                   | 18.0              | 65                       |                 |                           |   | 302          |
| 2,930                                 | 10.0                   |                   |                          | 36.0            |                           |   | 3404         |
| 2,975                                 | 5.0                    | 13.0              |                          |                 |                           |   | 3405         |
| 2,984                                 | 6.5                    |                   |                          |                 |                           |   | 3406         |
| 2,950                                 | 14.6                   | 19.0              | 73                       | 35.0            |                           | Previously subjected to gas injection.  | 4112         |
| 2,950                                 | 15.5                   | 19.0              | 106                      | 37.0            |                           | *Includes dump flood previously operated by I. J. Neal.<br>Previously subjected to gas injection. | 4113         |
| 3,070                                 | 10.0                   | 13.0              |                          | 36.0            |                           |   | 4114         |
| 2,530                                 | 6.2                    | 14.0              |                          | 39.8            | 3.7 @ 100°F               |   | 1901         |
| 2,580                                 | 8.2                    | 14.0              |                          | 39.8            | 2.9 @ 92°F                |   | 1902         |
| 3,150                                 | 8.0                    | 19.0              | 115                      | 39.0            | 3.7 @ 100°F               |   | 4115         |
| 3,200                                 | 14.8                   | 20.0              | 80                       | 39.0            | 3.7 @ 100°F               |   | 4116         |
| 2,639                                 | 12.5                   | 16.5              | 43                       | 34.4            | 6.8 @ 60°F                | *Two of these completed in 6-57.  | 4117         |
| 3,065                                 | 15.9                   | 19.0              | 85                       | 38.7            | 3.4 @ 90°F                | *Pilot flood.   | 4118         |
| 3,000                                 | 6.0                    | 19.0              |                          | 38.0            |                           | *Since 1-1-56.  | 4119         |
| 3,003                                 | 16.0                   |                   |                          |                 |                           | *Dump flood.  | 4205         |
| 2,950                                 | 30.0                   | 15.0              | 300                      | 36.5            |                           |   | 4206         |
| 2,960                                 | 30.0                   | 15.0              | 200                      | 36.5            |                           |   | 4207         |
| 2,950                                 | 12.0                   | 21.1              | 218                      | 35.1            | 5.0 @ 103°F               |   | 4208         |
| 1,230                                 | 14.0                   | 20.0              | 250                      | 37.0            |                           | *Cooperative: Shell, Magnolia, McBride, Horton.   | 4000         |
| 3,316                                 | 4.0                    |                   |                          |                 |                           |   | 4120         |
| 3,125                                 | 14.7                   | 23.9              |                          |                 |                           | *Cumulative since 1-1-53.   | 1501         |
| 3,200                                 | 15.0                   | 18.0              | 75                       | 38.0            |                           |   | 1502         |
| 3,150                                 | 15.0                   | 18.0              | 75                       | 36.5            |                           |   | 1503         |
| 3,050                                 | 14.0                   | 17.0              | 125                      | 38.0            |                           | Previously subjected to gas injection.  | 1504         |
| 2,805                                 | 6.9                    | 18.0              |                          | 36.6            | 3.35 @ 97°F               |   | 2002         |
| 2,941                                 | 14.0                   | 16.6              | 775                      | 37.8            | 2.47                      |   | 1903         |
| 2,985                                 | 6.0                    | 12.5              |                          | 41.4            |                           |   | 3407         |
| 2,900                                 | 8.0                    |                   |                          |                 |                           | *Dump flood using Cypress water.  | 1904<br>1007 |
| 3,385                                 | 5.0                    | 10.5              | 22                       |                 | 2.5 @ 103°F               | *Includes primary production since 1-1-57.  | 4209         |
| 2,050                                 | 31.3                   | 17.1              | 155                      | 37.4            |                           |   | 1301         |
| 3,260                                 | 15.0                   | 15.0              | 13                       | 36.0            |                           |   | 4123         |
| 3,242                                 | 10.0                   | 15.0              | 10                       |                 |                           |   | 4124         |
| 2,890                                 | 12.0                   | 22.0              | 100                      | 38.5            |                           |   | 3600         |
| 1,866                                 | 20.0                   | 19.5              | 200                      | 38.0            | 3.5 @ 60°F                |   | 4210         |
| 2,650                                 | 12.0                   | 15.0              | 17                       |                 |                           | *Includes primary production.   | 1405         |
| 2,913                                 | 23.0                   |                   |                          |                 |                           | *Corrected figure. †Includes primary production since 1-1-57.                                     | 4211         |
| 2,715                                 | 15.0                   | 14.9              | 58                       | 39.0            |                           |   | 4212         |
|                                       | 12.0                   |                   |                          | 38.0            |                           |   | 1101         |
| 3,000                                 | 5.1                    | 14.2              | 2,450                    |                 |                           |   | 320          |
| 2,400                                 | 5.9                    | 16.5              | 58                       | 36.4            | 4.2 @ 92°F                |   | 1406         |
| 1,670                                 | 14.0                   | 15.5-19.6         | 75-959                   |                 |                           |   | 1407         |
| 2,000                                 | 4.5-11.0               | 16.5-19.6         | 5-109                    |                 |                           | *Includes 20,920 bbls. accumulated at start of flood.   | 1408         |
| 2,100                                 | 15.0                   | 17.5              | 137                      | 37.7            | 3.6 @ 63°F                | *Includes primary production since start of flood.  | 1409         |
|                                       |                        |                   |                          |                 |                           | ‡As of 12-31-56.  |              |
| 2,400                                 | 9.6                    | 16.8              | 50                       | 38.0            | 3.6 @ 63°F                | *As of 1-1-57.  | 1410         |
| 2,100                                 | 29.0                   | 17.9              | 133                      | 35.5            |                           |   | 1411         |
|                                       |                        |                   |                          |                 |                           | *No data available.   | 1400         |
| 1,726                                 |                        | 15.0              | 72                       | 36.9            | 5.4 @ 80°F                |   | 1401         |
| 2,500                                 | 16.5                   | 13.5              | 40                       | 38.6            |                           |   | 1402         |
| 2,180                                 | 11.0                   | 13.0              |                          | 36.1            |                           |   | 1403         |
| 2,560                                 | 6.0                    | 18                | 100                      | 35.0            |                           |   | 1404         |
| 2,300                                 | 24.0                   |                   |                          | 37.0            |                           | *Two zones.   | 303          |
| 2,300                                 | 25.5                   |                   |                          | 37.0            |                           | *Two zones.   | 304          |
|                                       |                        |                   |                          |                 |                           | *No data available.   | 4001         |
|                                       |                        |                   |                          |                 |                           | *No data available.   | 4002         |
| 400                                   | 22.0                   | 19.2              | 225                      | 33.0            | 13.6                      | *No 1957 data available.  | 203          |
| 450                                   | 10.0-30.0              | 20.8              | 399                      | 33.9            | 19.0                      | Previously subjected to gas injection. *No 1957 data available.                                   | 204          |

TABLE 13.—

| Map No. | General                 |                        |                        |                   |                         |                                |
|---------|-------------------------|------------------------|------------------------|-------------------|-------------------------|--------------------------------|
|         | Field<br>C=Consolidated | Operator               | County                 | Project<br>U=Unit | Date first<br>injection | Formation                      |
| 205     | Johnson N.              | C. L. McMahon*         | Clark                  | Block "B"         | 5-51                    | Casey                          |
| 206     | Johnson N.              | Oldfield*              | Clark                  | V. Jones          | 9-51                    | Casey                          |
| 207     | Johnson N.              | Pure                   | Clark                  | N. Johnson        | 11-57                   | Claypool, Casey, U.<br>Partlow |
| 208     | Johnson N.              | Tidewater              | Clark                  | Clark #1          | 2-50                    | Casey                          |
| 209     | Johnson S.              | Forest                 | Clark                  | S. Johnson        | 3-49                    | U. Partlow                     |
| 210     | Johnson S.              | Pure                   | Clark                  | Johnson Ext. #1   | 1-54                    | U. Partlow                     |
| 211     | Johnson S.              | Pure                   | Clark                  | Johnson Ext. #2   | 11-55                   | Claypool, Casey, U.<br>Partlow |
| 212     | Johnson S.              | Pure                   | Clark                  | Pure-Kewanee      | 1-54                    | U. Partlow                     |
| 213     | Johnson S.              | Pure                   | Clark                  | Weaver-Bennett    | 1-53                    | U. Partlow                     |
| 4121    | Johnsonville C          | Texas                  | Wayne                  | Johnsonville U    | 10-56                   | Aux Vases                      |
| 4122    | Johnsonville C          | Texas                  | Wayne                  | Johnsonville U    | 11-54                   | McClosky                       |
| 1412    | Junction                | Alco†                  | Gallatin               | Junction          | 5-51                    | Waltersburg                    |
| 3915    | Keensburg S.            | White & Vickery        | Wabash                 | A. P. Garst       | 10-54                   | Cypress                        |
| 4125    | Keenville               | Calvert                | Wayne                  | Keenville U       | 11-56                   | McClosky                       |
| 4126    | Keenville               | W. Duncan              | Wayne                  | Keenville U       | 4-54                    | Aux Vases                      |
| 305     | Kenner                  | Texas                  | Clay                   | Kenner U          | 11-57                   | Benoist                        |
| 306     | Kenner W.               | Phillips               | Clay                   | W. Kenner         | 2-52                    | Ben. & Cyp.                    |
| 3916    | Lancaster S.            | Ashland                | Wabash                 | Lancaster S.      | 1-55                    | Bethel                         |
| 2201    | Lawrence                | Baldwin & Baldwin*     | Lawrence               |                   | 10-57                   | Bridgeport & Paint Creek       |
| 2202    | Lawrence                | Bradley                | Lawrence               | C. M. Perkins     | 2-55                    | Bridgeport                     |
| 2203    | Lawrence                | Bradley                | Lawrence               | C. M. Perkins     | 2-55                    | Kirkwood                       |
| 2204    | Lawrence                | Dearborn†              | Lawrence               | Applegate         | 9-52                    | Cyp. & Jackson                 |
| 2205    | Lawrence                | W. Duncan              | Lawrence               | L. C. David       | 8-56                    | Paint Creek                    |
| 2206    | Lawrence                | T. W. George*          | Lawrence               | Klondike          | 6-52                    | Bethel                         |
| 2207    | Lawrence                | W. W. Holden           | Lawrence               | Gray              | 5-53                    | Jackson, Bethel & Renault      |
| 2208    | Lawrence                | W. C. McBride          | Lawrence               | Crump "40"        | 4-56                    | Kirkwood                       |
| 2209    | Lawrence                | W. C. McBride          | Lawrence               | Crump-Fyffe       | 12-56                   | Kirkwood                       |
| 2210    | Lawrence                | W. C. McBride          | Lawrence               | Neal              | 6-56                    | Paint Creek & Kirkwood         |
| 2211    | Lawrence                | Murphy                 | Lawrence               | Stoltz            | 1-55                    | Bridgeport                     |
| 2212    | Lawrence                | Murphy                 | Lawrence               | Stoltz            | 1-55                    | Kirkwood                       |
| 2213,   |                         |                        |                        |                   |                         |                                |
| 2219-   |                         |                        |                        |                   |                         |                                |
| 2223    | Lawrence                | Ohio                   | Lawrence               | 6 projects*       | 52                      | Kirkwood & Paint Creek         |
| 2214,   |                         |                        |                        |                   |                         |                                |
| 2224-   |                         |                        |                        |                   |                         |                                |
| 2228    | Lawrence                | Ohio                   | Lawrence               | 6 projects*       | 48                      | Bridgeport                     |
| 2216,   |                         |                        |                        |                   |                         |                                |
| 3416-   |                         |                        |                        |                   |                         |                                |
| 3417    | Lawrence                | Ohio                   | Lawrence &<br>Richland | 3 projects*       | 11-48                   | McClosky                       |
| 2215    | Lawrence                | Ohio                   | Lawrence               | Thorn             | .                       | Kirkwood & Paint Creek         |
| 2217    | Lawrence                | Shakespeare            | Lawrence               | S. Bridgeport U*  | 10-56                   | Benoist                        |
| 2500    | Livingston              | W. H. Krohn            | Madison                |                   | 7-54                    | Penn.                          |
| 2501    | Livingston              | Cahill & Smith         | Madison                | C & O Henke       | 5-52                    | Penn.                          |
| 1200    | Louden                  | J. P. Babcock          | Fayette                | Rhodes & McCloy   | 1-54                    | Paint Creek & Bethel           |
| 1201    | Louden                  | W. L. Belden           | Fayette                | Hinton            | 9-56                    | Cypress                        |
| 1202    | Louden                  | W. L. Belden           | Fayette                |                   | 10-57                   | Cypress                        |
| 1203    | Louden                  | Burtschi               | Fayette                | D. L. Burtschi    | 10-53                   | Cypress                        |
| 1204    | Louden                  | Carter                 | Fayette                | Louden            | 10-50                   | Chester                        |
| 1205    | Louden                  | Doran                  | Fayette                | Stewart & Dial    | 7-57                    | Cypress                        |
| 1206    | Louden                  | General American       | Fayette                | Devore Coop.      | 7-57                    | Weiler                         |
| 1207    | Louden                  | Jarvis Bros. & Marcell | Fayette                | Homan             | 3-54                    | Cypress                        |
| 1208    | Louden                  | Jarvis & Marcell       | Fayette                | Yakey             | 11-57                   | Cypress, Benoist               |
| 1209    | Louden                  | B. Kidd                | Fayette                | Louden            | 9-54                    | Weiler                         |
| 1210    | Louden                  | Kingwood               | Fayette                | Yolton            | 8-57                    | Cypress                        |
| 1211    | Louden                  | Kingwood               | Fayette                | Yolton            | 8-57                    | Paint Creek                    |
| 1212    | Louden                  | J. A. Lewis            | Fayette                | Louden Extension  | 12-55                   | Cypress                        |



TABLE 13.—

| Map No. | Development as of 12-31-57 |       |                     |                              |                    |        | Injection water                                 |                            |                            |                            |  |
|---------|----------------------------|-------|---------------------|------------------------------|--------------------|--------|---|----------------------------|----------------------------|----------------------------|--|
|         | No. of wells               |       | Injection pattern   | Spacing acres per input well | Productive acreage |        | Source<br>Sd=Sand<br>Gr=Gravel<br>Prod=Produced | Type<br>F=Fresh<br>B=Brine | Av. bbls. per day per well | Av. well-head pressure PSI |  |
|         | Inj.                       | Prod. |                     |                              | Sub-jected to inj. | Total  |   |                            |                            |                            |  |
| 205     | 18                         | 12    | 5-Spot              | 4.4                          | 80                 |        |   |                            |                            | 420                        |  |
| 206     |                            |       |                     |                              |                    |        |   |                            |                            |                            |  |
| 207     | 77                         |       | 5-Spot              | 4.5                          |                    |        |   | B                          | 6.5                        | 200                        |  |
| 208     | 17                         | 25    | 5-Spot              | 4.4                          | 81                 | 102    |   |                            | 2.2                        | 832                        |  |
| 209     | 86                         | 75    | 5-Spot              | 4.4                          | 400                | 243    | Prod  | B                          | 2.5                        | 293                        |  |
| 210     | 66                         | 60    | 5-Spot              | 5                            | 243                | 243    | Prod  | B                          | 2.1                        | 245                        |  |
| 211     | 69                         | 56    | 5-Spot              | 4.5                          | 234                | 234    | Prod  | B                          | 0.9                        | 245                        |  |
| 212     | 20                         | 13    | 5-Spot              | 4.4                          | 54                 | 67     | Prod  | B                          | 3.7                        | 245                        |  |
| 213     | 36                         | 24    | 5-Spot              | 4.4                          | 114                | 151    | Prod  | B                          | 1.6                        | 245                        |  |
| 4121    | 19                         | 65    |                     | 10                           | 1,200              | 2,110  | Penn. & Prod                                    | B                          | 22.7                       | 553                        |  |
| 4122    | 18                         | 80    | Perimeter           | 20                           | 3,400              | 3,400  | Weiler & Prod                                   | B                          | 43.8                       |                            |  |
| 1412    | 11                         | 7     | Mod. 5-Spot         | 10                           | 263                | 263    | Shallow Sd                                      | F                          | 3.3                        | 1,000                      |  |
| 3915    |                            |       |                     |                              |                    |        |   |                            |                            |                            |  |
| 4125    | 3                          | 12    | Peripheral          |                              | 180                | 220    | Penn. Sd  | B                          | 20.5                       | 485                        |  |
| 4126    | 3                          | 9     | Perimeter           |                              | 120                | 120    | Shallow Sd                                      | F                          | 26.2                       | 1,600                      |  |
| 305     | 22                         | 19    | 5-Spot              |                              | 715                | 715    | Penn. Sd & Prod                                 | B                          | 1.6                        | 511                        |  |
| 306     | 12                         | 15    | Mod. 5-Spot         | 10                           | 329                | 329    | Penn. Sd & Prod                                 | B                          | 14.6                       | 703                        |  |
| 3916    | 1                          | 3     |                     | 30                           | 30                 | 30     | Tar Springs                                     | B                          | 7.2                        | 713                        |  |
| 2201    |                            |       |                     |                              |                    |        |   |                            |                            |                            |  |
| 2202    | 17                         | 15    | 5-Spot              | 10                           | 80                 | 100    | Prod  | B                          | 4.4                        |                            |  |
| 2203    |                            |       | 5-Spot              | 10                           | 80                 | 100    | Prod  | B                          | 5.3                        |                            |  |
| 2204    | 4                          | 1     | 5-Spot              | 10                           |                    | 225    | Gr Bed  | F                          | 12.5                       | 600                        |  |
| 2205    | 1                          | 1     |                     | 10                           | 20                 | 10     | River Gr  | F                          | 9.5                        | 1,100                      |  |
| 2206    |                            |       |                     |                              |                    |        |   |                            |                            |                            |  |
| 2207    | 9                          | 13    | 5-Spot              | 10                           | 130                | 258    | Penn. Sd  | B                          | 2.6                        | 555                        |  |
| 2208    | 9                          | 5     | 5-Spot              | 10                           | 40                 | 40     | River Gr  | F                          | 4.6                        |                            |  |
| 2209    | 9                          | 7     | 5-Spot              | 10                           | 60                 | 70     | Buchanan Sd & River Gr                          | F & B                      | 4.3                        |                            |  |
| 2210    | 4                          | 4     | 5-Spot              | 10                           | 40                 | 80     | Buchanan Sd & River Gr                          | F & B                      | 4.6                        |                            |  |
| 2211    | 9                          | 10    | 5-Spot              | 3                            | 25                 | 25     | Gr Bed & Prod                                   | F & B                      | 3.1                        | 394                        |  |
| 2212    | 10                         | 8     | 5-Spot              | 3                            | 25                 | 25     | Gr Bed & Prod                                   | F & B                      | 6.6                        | 355                        |  |
| 2213,   |                            |       |                     |                              |                    |        |   |                            |                            |                            |  |
| 2219-   |                            |       |                     |                              |                    |        |   |                            |                            |                            |  |
| 2223    | 224                        | 247   | 5-Spot              | 10                           | 2,145              |        | Gr Bed & Prod                                   | F & B                      |                            |                            |  |
| 2214,   |                            |       |                     |                              |                    |        |   |                            |                            |                            |  |
| 2224-   |                            |       |                     |                              |                    |        |   |                            |                            |                            |  |
| 2228    | 173                        | 262   | 5-Spot              | 10                           | 1,614              |        | Prod  | F & B                      |                            |                            |  |
| 2216,   |                            |       |                     |                              |                    |        |   |                            |                            |                            |  |
| 3416-   |                            |       |                     |                              |                    |        |   |                            |                            |                            |  |
| 3417    | 13                         | 35    | Line, Dump          | 7                            | 455                |        | Prod & Cypress                                  | F & B                      |                            |                            |  |
| 2215    |                            |       |                     |                              |                    |        |   |                            |                            |                            |  |
| 2217    | 7                          | 9     | Mod. 5-Spot         | 23                           | 210                | 514    | Tar Springs                                     | B                          | 8.9                        | 91                         |  |
| 2500    | 2                          | 5     |                     |                              |                    | 80     | Ben. & A. V.                                    | B                          | 2.2                        | 700                        |  |
| 2501    | 5                          | 10    |                     |                              |                    | 40     | Salem   | B                          |                            | 450                        |  |
| 1200    | 8                          | 9     | 5-Spot              |                              | 140                | 170    | T. S. & Prod                                    | B                          | 3.4                        |                            |  |
| 1201    | 1                          | 1     | 5-Spot              |                              | 20                 | 10     |   | B                          | 7.8                        |                            |  |
| 1202    | 4                          |       |                     |                              |                    |        |   | B                          | 9.6                        | 150                        |  |
| 1203    | 1                          | 3     |                     | 10                           | 20                 |        | Purchased*                                      | B                          | 3.7                        |                            |  |
| 1204    | 395                        | 778   | 5-Spot & Sun-flower |                              | 11,131             | 13,637 | Tar Springs                                     | B                          | 8.0                        | 635                        |  |
| 1205    | 2                          | 4     | 5-Spot              |                              | 40                 | 40     | Tar Springs                                     | B                          | 4.8                        | 100                        |  |
| 1206    | 1                          | 3     |                     | 10                           | 80                 | 80     | Prod & Purchased‡                               | B                          | 12.5                       |                            |  |
| 1207    | 16                         | 18    | 5-Spot              | 20                           | 324                | 400    | T. S. & Prod                                    | B                          | 5.7                        | 56                         |  |
| 1208    | 4                          | 6     | 5-Spot              | 20                           | 78                 | 78     | Tar Springs                                     | B                          | 4.0                        | None                       |  |
| 1209    | 1                          | 4     | 5-Spot              | 20                           | 40                 | 50     | Tar Springs                                     | B                          | 5.5                        | 485                        |  |
| 1210    | 4                          | 4     | 5-Spot              | 20                           | 85                 | 85     | Tar Springs                                     | B                          | 1.6                        |                            |  |
| 1211    | 1                          | 1     | 5-Spot              | 20                           | 40                 | 40     | Tar Springs                                     | B                          | 1.8                        |                            |  |
| 1212    | 46                         | 48    | 5-Spot              | 20                           | 1,000              | 1,000  | Tar Springs                                     | B                          | 8.9                        | 383                        |  |

(Continued)

| Reservoir statistics (average values) |                        |                   |                          |                 |                           | Remarks   | Map No.                |
|---------------------------------------|------------------------|-------------------|--------------------------|-----------------|---------------------------|---|------------------------|
| Depth feet                            | Net pay thickness feet | Porosity per cent | Permeability millidarcys | Oil gravity API | Oil viscosity centipoises |   |                        |
| 480                                   | 22.0                   | 18.3              | 66                       | 33.0            | 10.0 @ 70°F               | Previously subjected to gas injection. *Sold to Frank Bridges, 5-57. †Through 4-30-57. ‡Cumulative to 12-31-56, water production 4-55 through 12-55 not included. | 205                    |
| 408                                   | 24.0, 19.0<br>17.0     | 19.5              | 300                      |                 |                           | *No 1957 data available.  | 206<br>207             |
| 425                                   | 17.0                   | 20.6              | 415                      | 33.9            | 10.7 @ 70°F               | Subjected to gas injection 1946-7.  | 208                    |
| 490                                   | 48.0                   | 16.6              | 319                      | 29.2            | 14.7 @ 77°F               | Previously subjected to gas injection.  | 209                    |
| 465                                   | 35.0                   | 18.9              | 312                      | 29.7            | 21.0 @ 65°F               |   | 210                    |
| 420                                   | 19.0, 15.0,<br>30.0    | 20.6              | 294                      |                 |                           |   | 211                    |
| 507                                   | 33.0                   | 18.2              | 277                      | 29.7            | 25.5 @ 65°F               | Previously subjected to air injection.  | 212                    |
| 467                                   | 35.5                   | 18.6              | 285                      | 29.7            | 25.5 @ 65°F               |   | 213                    |
| 3,000                                 | 7.5                    | 19.1              | 187                      | 37.0            |                           |   | 4121                   |
| 3,100                                 | 10.0                   | 15.5              | 850                      | 38.0            |                           |   | 4122                   |
| 1,750                                 | 14.0                   | 13.4              | 22                       | 34.7            | 6.7 @ 81°F                | †Now Lewis Eng. ‡Includes primary production since 11-1-51.   | 1412                   |
| 2,403                                 | 15.0                   | 20.6              | 134                      | 37.5            | 4.6 @ 91°F                | *No 1957 data available.  | 3915                   |
| 3,100                                 | 9.0                    |                   |                          |                 |                           | *Includes primary production since 11-1-56.   | 4125                   |
| 2,950                                 | 13.0                   | 20.0              | 155                      | 39.0            | 3.5 @ 97°F                | *Includes primary production since start of flood.  | 4126                   |
| 2,700                                 | 14.0                   | 15.6              | 54                       |                 |                           |   | 305                    |
| 2,600                                 | 26.0                   | 18.0              | 125                      | 37.5            |                           |   | 306                    |
| 2,520                                 | 10.0                   |                   |                          |                 |                           | *Includes primary production since start of flood.  | 3916                   |
|                                       |                        |                   |                          |                 |                           | *No data available.   | 2201                   |
| 900                                   | 19.0                   | 18.0              | 125                      | 36.0            | 6.1 @ 60°F                | *Includes primary production since start of flood. ‡Includes six line wells with Ohio.  | 2202                   |
| 1,375                                 | 23.0                   | 14.2              | 28                       | 36.0            | 6.1 @ 60°F                | *Included in Bridgeport production.   | 2203                   |
| 1,320                                 | 22.7                   | 20.1              | 62                       | 34.7            | 4.3 @ 81°F                | *As of 1-1-55. †Formerly operated by H. W. Sherrill. ‡Data for 1955 is not included.  | 2204                   |
| 1,600                                 | 6.0                    |                   |                          |                 |                           |   | 2205                   |
| 1,625                                 | 18.0                   | 17.2              | 60                       | 37.8            | 5.2 @ 80°F                | *No 1957 data available.  | 2206                   |
| J-1,428                               | 8.0                    | 18.4              | 95                       | 38.0            | 5.0 @ 85°F                | *Corrected figure. ‡Includes primary production since start of flood. §Last 5 mo. estimated.  | 2207                   |
| R-1,632                               | 15.0                   | 18.5              | 17                       |                 |                           |   |                        |
| B-1,611                               | 14.5                   | 14.6              | 13                       |                 |                           |   |                        |
| 1,280                                 | 25.0                   | 21.0              | 90                       |                 |                           | *Since 1-1-57.  | 2208                   |
| 1,420                                 | 22.0                   | 20.0              | 80                       |                 |                           |   | 2209                   |
| 1,390                                 | 45.0                   | 16.5              | 60                       |                 |                           |   | 2210                   |
| 860                                   | 25.0                   | 22.3              | 148                      | 37.0            |                           | *Included in production from Kirkwood Formation.  | 2211                   |
| 1,400                                 | 18.5                   | 17.3              | 18                       | 37.0            |                           | *Includes production from Bridgeport Formation. Corrected figures.  | 2212                   |
|                                       |                        | 20.0              |                          |                 |                           | *Westall, Middagh, Boyd, Sutton, Kimmel, Thorn.   | 2213,<br>2219-<br>2223 |
|                                       |                        | 20.0              |                          |                 |                           | *Robins, Johnson, Cooper, Gee, Lewis, Clark. Previously subjected to gas injection.   | 2214,<br>2224-<br>2228 |
| 3,150                                 |                        |                   |                          |                 |                           | *Gillespie (2216), Arbuthnot-Shillingis (3416), Parkersburg Unit (3417). Previously subjected to gas injection.   | 2216,<br>3416-<br>3417 |
| 1,800                                 | 12.1                   | 17.1              | 68                       | 38.0            | 6.0 @ 84°F                | *Pilot flood.   | 2215<br>2217           |
| 520                                   | 15.0                   |                   |                          | 33.5            |                           |   | 2500                   |
| 550                                   | 15.0                   |                   |                          |                 |                           | *Includes primary production. ‡Estimated.   | 2501                   |
| 1,550                                 | 25.0                   |                   |                          | 38.0            |                           | *Includes primary production since start of flood. Previously subjected to gas injection.   | 1200                   |
| 1,584                                 | 20.0                   | 17.4              | 126                      | 34.0            |                           |   | 1201                   |
| 1,530                                 | 15.0                   |                   |                          | 34.0            |                           |   | 1202                   |
| 1,492                                 | 30.0                   |                   |                          |                 |                           | *Water supplied by Carter. Previously subjected to gas injection.   | 1203                   |
| 1,500                                 | 30.0                   | 20.0              | 105                      | 38.0            | 2.6                       |   | 1204                   |
| 1,522                                 | 20.0                   | 19.0              | 120                      | 32.4            |                           |   | 1205                   |
| 1,454                                 | 10.0                   | 18.0              | 43                       | 38.7            | 5.2 @ 80°F                | *Total production. ‡Produced, from Weiler sand; purchased from Carter.  | 1206                   |
| 1,560                                 | 35.0                   | 18.0              | 200                      | 36.0            |                           | *Since 1-1-56.  | 1207                   |
| 1,450                                 | C-20.0<br>B-30.0       | 19.0              | 130                      |                 |                           | Previously subjected to gas injection.  | 1208                   |
| 1,450                                 | 27.0                   |                   |                          | 38.0            |                           | *Corrected figure.  | 1209                   |
| 1,504                                 | 30.0                   |                   |                          |                 |                           |   | 1210                   |
| 1,572                                 | 29.0                   |                   |                          |                 |                           |   | 1211                   |
| 1,550                                 | 16.0                   | 20.0              | 200                      | 38.0            | 5.0 @ 60°F                | *Includes primary production since start of flood. ‡Corrected figure.   | 1212                   |



TABLE 13.—

| Map No. | General                 |                     |          |                        |                         |                   |
|---------|-------------------------|---------------------|----------|------------------------|-------------------------|-------------------|
|         | Field<br>C=Consolidated | Operator            | County   | Project<br>U=Unit      | Date first<br>injection | Formation         |
| 1213    | Louden                  | J. J. Lynn Estate   | Fayette  | E. C. Smith            | 7-57                    | Cypress           |
| 1214    | Louden                  | Mabee               | Fayette  | Louden                 | 8-55                    | Cypress           |
| 1215    | Louden                  | Mabee               | Fayette  | Louden                 | 5-57                    | Cypress           |
| 1216    | Louden                  | Magnolia            | Fayette  | Rhodes-Watson Coop.    | 8-57                    | Cyp., P.C. & Ben. |
| 1217    | Louden                  | W. C. McBride       | Fayette  | Stokes Weiler          | 3-56                    | Weiler            |
| 1218    | Louden                  | Shell               | Fayette  | N. Loudon U            | 11-56                   | Cypress           |
| 1219    | Louden                  | Shell               | Fayette  | S. Loudon U            | 3-55                    | Cypress           |
| 1220    | Louden                  | R. H. Troop         | Fayette  | Durbin Area            | 8-56                    | Cypress           |
| 1221    | Louden                  | R. H. Troop         | Fayette  | Hiatt U                | 9-56                    | Cypress           |
| 602     | Main C                  | Ashland             | Crawford | Birds #1               | 5-54                    | Robinson          |
| 603     | Main C                  | Ashland             | Crawford | Birds #2               | 3-57                    | Robinson          |
| 604     | Main C                  | Bell Bros.          | Crawford | Barrick                | 10-54                   | Robinson          |
| 605     | Main C                  | Calvan American*    | Crawford | Bishop                 | 11-53                   | Robinson          |
| 606     | Main C                  | Calvan American**   | Crawford | Grogan                 | 10-53                   | Robinson          |
| 607     | Main C                  | Calvan American     | Crawford | Mitchell               | 6-53                    | Robinson          |
| 608     | Main C                  | W. Duncan           | Crawford | Tohill-Hughes-Robinson |                         | Robinson          |
| 659     | Main C                  | E. Constantin*      | Crawford | Sanders                | 8-52                    | Robinson          |
| 609     | Main C                  | E. Constantin*      | Crawford | J. S. Kirk             | 8-51                    | Robinson          |
| 610     | Main C                  | E. Constantin*      | Crawford | Smith                  | 3-54                    | Robinson          |
| 611     | Main C                  | Forest              | Crawford | Oblong                 | 8-56                    | Robinson          |
| 612     | Main C                  | D. W. Franchot      | Crawford | Birds                  | 6-51                    | Robinson          |
| 613     | Main C                  | General Operations* | Crawford | Culver                 | 2-53                    | Robinson          |
| 614     | Main C                  | General Operations* | Crawford | Little John            | 10-52                   | Robinson          |
| 660     | Main C                  | General Operations* | Crawford | Culver Extension       | 3-54                    | Robinson          |
| 615     | Main C                  | G. M. J.*           | Crawford | Porterville            | 5-54                    | Robinson          |
| 616     | Main C                  | Hardinville         | Crawford | Tohill & Hughes        | 6-51                    | Robinson          |
| 617     | Main C                  | Kewanee             | Crawford | Wright                 | 1-53                    | Robinson          |
| 618     | Main C                  | A. J. Leverton*     | Crawford | Stanford               | 6-52                    | Robinson          |
| 619     | Main C                  | Logan               | Crawford | Alexander-Reynolds     | 12-51                   | Robinson          |
| 620     | Main C                  | Mahutska*           | Crawford | Oil Center             | 5-54                    | Robinson          |
| 621     | Main C                  | Mahutska*           | Crawford |                        |                         | Robinson          |
| 622     | Main C                  | Mahutska*           | Crawford |                        |                         | Robinson          |
| 623,    |                         |                     |          |                        |                         |                   |
| 646-    |                         |                     |          |                        |                         |                   |
| 658     | Main C                  | Ohio                | Crawford | 14 projects*           | 48                      | Robinson          |
| 624     | Main C                  | Partlow & Cochonour | Crawford | Rich                   | 10-54                   | Robinson          |
| 625     | Main C                  | Red Head*           | Crawford | "D. I. M."             | 7-53                    | Robinson          |
| 626     | Main C                  | E. C. Reeves        | Crawford | Billingsley            | 12-53                   | Robinson          |
| 627     | Main C                  | Shakespeare         | Crawford | McIntosh U             | 7-54                    | Robinson          |
| 628     | Main C                  | Shakespeare         | Crawford | Montgomery U           | 5-54                    | Robinson          |
| 629     | Main C                  | Tidewater           | Crawford | Clark-Hulse            | 1-52                    | Robinson          |
| 630     | Main C                  | Tidewater           | Crawford | Birch #1               | 8-54                    | Robinson          |
| 631     | Main C                  | Tidewater           | Crawford | Birds Area             | 2-52                    | Robinson          |
| 632     | Main C                  | Tidewater           | Crawford | Barrick-Walters        | 3-54                    | Robinson          |
| 633     | Main C                  | Tidewater           | Crawford | Good                   | 9-52                    | Robinson          |
| 634     | Main C                  | Tidewater           | Crawford | W. A. Howard           | 2-52                    | Robinson          |
| 635     | Main C                  | Tidewater           | Crawford | Ames                   | 9-57                    | Robinson          |
| 636     | Main C                  | Tidewater           | Crawford | Dennis-Hardin          | 8-50                    | Robinson          |
| 637     | Main C                  | Tidewater           | Crawford | G. L. Thompson         | 9-52                    | Robinson          |
| 638     | Main C                  | Tidewater           | Crawford | Henry-Ickmire          | 2-48                    | Robinson          |
| 639     | Main C                  | Tidewater           | Crawford | Lefever-Musgrave       | 2-54                    | Robinson          |
| 640     | Main C                  | Tidewater           | Crawford | Montgomery-Seitzinger  | 5-54                    | Robinson          |

(Continued)

| Information    |        |                      |       | Production and injection statistics (thousand bbls.) |                     |                |                     |                  |                     | Map No. |
|----------------|--------|----------------------|-------|--|---------------------|----------------|---------------------|------------------|---------------------|---------|
| Location       |        | Curtailed during '57 |       | Secondary recovery                                   |                     |                |                     |                  |                     |         |
|                |        |                      |       | Water injection                                      |                     | Oil production |                     | Water production |                     |         |
| Sec.           | T.-R.  | Inj.                 | Prod. | Total 1957   | Cumulative 12-31-57 | Total 1957     | Cumulative 12-31-57 | Total 1957       | Cumulative 12-31-57 |         |
| 20             | 7N- 3E |                      |       | 61   | 61                  | 24.1           | 24                  |                  |                     | 1213    |
| 29             | 7N- 3E |                      |       | 168  | 355                 | 95.2           | 139*                | 107              | 174*                | 1214    |
| 30             | 7N- 3E |                      |       | 83   | 83                  | None           | None                |                  |                     | 1215    |
| 27, 33, 34     | 8N- 3E |                      |       | 19   | 19                  | 7.7            | 8                   | 151              | 151                 | 1216    |
| 14             | 8N- 3E |                      |       | 228  | 356                 | 8.0            | 8                   | 1                | 1                   | 1217    |
| 20, 21         | 7N- 3E | x                    | x     | 1,779  | 1,920               | 463.5          | 464                 | 227              | 230                 | 1218    |
| 21, 28, 29     | 7N- 3E | x                    | x     | 1,338  | 3,387               | 416.5          | 861                 | 619              | 1,167               | 1219    |
| 24, 26         | 8N- 3E | x                    | x     | 120  | 145                 | 25.7           | 26*                 |                  |                     | 1220    |
| 29             | 7N- 3E | x                    | x     | 219  | 267                 | 61.1           | 62                  |                  |                     | 1221    |
| 9, 10, 15, 16  | 5N-11W |                      |       | 2,331  | 10,257              | 77.0           | 287                 | 42               | 1,294               | 602     |
| 20             | 5N-11W |                      |       | 127  | 127                 | 1.9            | 2                   |                  |                     | 603     |
| 13             | 7N-13W |                      |       | 57   | 165                 |                |                     |                  |                     | 604     |
| 20             | 8N-12W |                      |       | 407  | 1,428               | 4.5            | 16‡                 |                  | 41                  | 605     |
| 4, 9           | 7N-13W |                      |       |  | 303*                |                | 2*                  |                  |                     | 606     |
| 24, 25         | 7N-13W |                      |       | 144  | 604                 | 15.1           | 56‡                 |                  | 31*                 | 607     |
| 27, 28         | 6N-13W |                      |       |  |                     |                |                     |                  |                     | 608     |
| 1, 2, 3        | 5N-13W |                      |       |  |                     |                |                     |                  |                     | 609     |
| 26, 34, 35, 36 | 6N-13W |                      |       |  |                     |                |                     |                  |                     | 610     |
| 29, 30, 31, 32 | 7N-12W |                      |       |  |                     |                |                     |                  |                     | 611     |
| 7              | 7N-12W |                      |       |  |                     |                |                     |                  |                     | 612     |
| 12             | 7N-13W |                      |       |  |                     |                |                     |                  |                     | 613     |
| 5, 8, 9        | 7N-13W |                      |       | 978  | 1,258               | 41.4           | 59*                 |                  |                     | 614     |
| 21, 22         | 5N-11W |                      |       | 2,502  | 12,448*             | 146.6          | 681*                | 200              | 800                 | 615     |
| 5, 6, 7        | 7N-12W |                      |       | 224  | 1,373‡              | 1.7            | 4‡                  | 38               | 104‡                | 616     |
| 20             | 6N-12W |                      |       | 142  | 259‡                | 8.8            | 19                  | 50               | 61                  | 617     |
| 18             | 7N-12W |                      |       |  |                     |                |                     |                  |                     | 618     |
| 25, 36         | 8N-13W |                      |       |  |                     |                |                     |                  |                     | 619     |
| 28             | 6N-13W |                      |       |  | 2,313*              |                | 139*                |                  | 413‡                | 620     |
| 23, 26         | 6N-13W |                      |       | 499  | 1,966               | 5.5            | 9                   | 102              | 375                 | 621     |
| 20             | 7N-12W |                      |       | 530*   | 2,145               | 39.4           | 222                 | 180*             | 535                 | 622     |
| 10, 14, 15     | 6N-13W |                      |       |  |                     |                |                     |                  |                     | 623,    |
| 2, 3           | 7N-13W |                      |       |  |                     |                |                     |                  |                     | 624-    |
| 27             | 6N-13W |                      |       |  |                     |                |                     |                  |                     | 625     |
|                |        |                      |       | 18,871   | 66,267              | 1,028.9        | 4,934               | 6,446            | 24,356              | 626     |
| 35, 36         | 6N-12W |                      |       | 487  | 794                 | 13.9           | 29                  | 244              | 361                 | 627     |
| 25, 26         | 6N-13W |                      |       | 396  | 2,017               | 12.5           | 49‡                 |                  |                     | 628     |
| 34, 35         | 7N-13W |                      |       | 336  | 1,748               | 14.4           | 50                  | 9                | 23                  | 629     |
| 17, 18, 19, 20 | 6N-12W |                      |       | 118  | 281                 | 6.0            | 15                  | 87               | 163                 | 630     |
| 32, 33         | 6N-12W |                      |       | 171  | 443                 | 5.9            | 16                  | 79               | 145                 | 631     |
| 4              | 5N-12W |                      |       |  |                     |                |                     |                  |                     | 632     |
| 18             | 7N-13W |                      |       | 417  | 1,804               | 26.8           | 188                 | 296              | 833                 | 633     |
| 14             | 6N-13W |                      | x     | 253  | 625*                | 29.5           | 89                  | 18               | 44                  | 634     |
| 16, 20, 21     | 5N-11W |                      |       | 1,054  | 2,378               | 69.0           | 214                 | 300              | 1,262               | 635     |
| 19             | 7N-12W |                      |       | 624  | 1,329               | 23.7           | 72                  | 18               | 78                  | 636     |
| 16             | 6N-13W |                      |       | 16   | 16                  | None           | None                | 0.1              | 0.1                 | 637     |
| 11             | 7N-13W |                      | x     | 140  | 532                 | 7.8            | 38                  | 46               | 213                 | 638     |
|                |        |                      |       | 11   | 11                  | 0.6            | 1                   | 5                | 5                   | 639     |
| 27, 34         | 6N-13W |                      |       | 381  | 2,938               | 50.3           | 502                 | 313              | 1,737               | 640     |
| 26, 27         | 6N-13W |                      |       | 150  | 909                 | 21.2           | 80                  | 81               | 231                 | 641     |
| 10, 15         | 7N-13W |                      |       | 367  | 3,348               | 20.2           | 410                 | 284              | 1,701               | 642     |
| 13             | 7N-14W |                      |       | 142  | 560                 | 52.0           | 145                 | 17               | 52                  | 643     |
| 15, 16         | 5N-11W |                      |       | 151  | 383                 | 10.6           | 19                  | 30               | 80                  | 644     |

TABLE 13.—

| Map No. | Development as of 12-31-57 |       |                   |                              |                    |       | Injection water                                 |                            |                            |                            |  |
|---------|----------------------------|-------|-------------------|------------------------------|--------------------|-------|---|----------------------------|----------------------------|----------------------------|--|
|         | No. of wells               |       | Injection pattern | Spacing acres per input well | Productive acreage |       | Source<br>Sd=Sand<br>Gr=Gravel<br>Prod=Produced | Type<br>F=Fresh<br>B=Brine | Av. bbls. per day per well | Av. well-head pressure PSI |  |
|         | Inj.                       | Prod. |                   |                              | Sub-jected to inj. | Total |   |                            |                            |                            |  |
| 1213    | 3                          | 7     |                   | 35                           | 100                | 100   | Purchased*                                      | B                          | 5.5                        | None                       |  |
| 1214    | 4                          | 4     | 5-Spot            |                              | 80                 | 80    | Tar Springs                                     | B                          | 4.2                        | None                       |  |
| 1215    | 3                          | 6     | 5-Spot            |                              | 80                 | 80    | Tar Springs                                     | B                          | 3.8                        | None                       |  |
| 1216    | 6                          | 9     | 5-Spot            |                              | 110                | 250   | T. S. & Prod                                    | B                          | 0.7                        |                            |  |
| 1217    | 3                          | 3     | 5-Spot            | 20                           | 60                 | 60    | Tar Springs                                     | B                          | 8.3                        | None                       |  |
| 1218    | 20                         | 21    | 5-Spot            | 10                           | 250                | 250   | Tar Springs                                     | B                          | 11.6                       | 116                        |  |
| 1219    | 20                         | 21    | 5-Spot            | 20                           | 350                | 590   | Tar Springs                                     | B                          | 10.2                       | 63                         |  |
| 1220    | 2                          | 4     |                   |                              | 50                 |       | Tar Springs                                     | B                          | 5.4                        |                            |  |
| 1221    | 2                          | 3     | 5-Spot            | 20                           | 40                 | 40    | Tar Springs                                     | B                          | 7.5                        | None                       |  |
| 602     | 67                         | 53    | 5-Spot            | 10                           | 530                | 580   | Penn. Sd  | B                          | 3.2                        | 630                        |  |
| 603     | 3                          | 2     | 5-Spot            | 10                           | 20                 |       | Purchased                                       | B                          | 5.5                        | 334                        |  |
| 604     | 3                          | 4     | 5-Spot            |                              | 40                 | 40    | Cyp. & Prod                                     | B                          | 0.9                        | 300                        |  |
| 605     | 26                         | 3     | 5-Spot            | 10                           | 207                | 474   | Penn. Sd  | B                          | 3.1                        | 450                        |  |
| 606     | 8                          | 5     | 5-Spot            | 10                           | 28                 | 231   | Penn. Sd  | B                          |                            |                            |  |
| 607     | 13                         | 18    | 5-Spot            | 10                           | 62                 | 240   | Penn. Sd  | B                          | 5.8                        | 450                        |  |
| 608     |                            |       |                   |                              |                    |       |   |                            |                            |                            |  |
| 609     |                            |       |                   |                              |                    |       |   |                            |                            |                            |  |
| 610     |                            |       |                   |                              |                    |       |   |                            |                            |                            |  |
| 611     | 33                         | 25    | 5-Spot            | 10                           | 180                | 230   | Gr Bed & Prod                                   | F & B                      | 3.9                        | 508                        |  |
| 612     | 81                         | 71    | 5-Spot            | 10                           | 740                | 1,600 | River Gr  | F                          | 3.5                        | 500                        |  |
| 613     | 12                         | 8     | 5-Spot            | 10                           | 40                 | 710   | Lake  | F                          | 2.0                        | 400                        |  |
| 614     | 4                          | 10    | †                 | 4.5                          | 30                 | 60    | Penn. Sd  | F & B                      | 4.6                        | 450                        |  |
| 660     |                            |       |                   |                              |                    |       |   |                            |                            |                            |  |
| 615     |                            |       |                   |                              |                    |       |   |                            |                            |                            |  |
| 616     | 14                         | 13    | 5-Spot            | 10                           | 87                 | 298   | Shallow Sd                                      | F                          |                            |                            |  |
| 617     | 15                         | 34    | 5-Spot            | 10                           | 113                | 210   | Penn. Sd  | B                          | 6.1                        | 541                        |  |
| 618     |                            |       |                   |                              |                    |       |   |                            |                            |                            |  |
| 619     | 25                         | 25    | 5-Spot            |                              | 90                 | 330   | Cypress   | B                          | 2.6                        | 420                        |  |
| 620     |                            |       |                   |                              |                    |       |   |                            |                            |                            |  |
| 621     |                            |       |                   |                              |                    |       |   |                            |                            |                            |  |
| 622     |                            |       |                   |                              |                    |       |   |                            |                            |                            |  |
| 623,    |                            |       |                   |                              |                    |       |   |                            |                            |                            |  |
| 646-    |                            |       |                   |                              |                    |       |   |                            |                            |                            |  |
| 658     | 460                        | 615   | 5-Spot            | 10                           | 3,360              |       | Grouped Gr Bed & Prod                           | F & B                      |                            |                            |  |
| 624     | 5                          | 9     | Line              | 5                            | 60                 | 120   | Lake & Prod                                     | F & B                      | 22.2                       | 650                        |  |
| 625     | 18                         | 14    | 5-Spot            | 10                           | 103                |       | Upper Sd & Surface                              | F & B                      | 6.6                        | 400                        |  |
| 626     | 6                          | 7     | 5-Spot            | 10                           | 115                | 350   | Penn. Sd  | B                          | 7.7                        | 321                        |  |
| 627     | 4                          | 8     | Peripheral        | 4.7                          | 39                 | 88    | Penn. Sd  | B                          | 6.7                        | 314                        |  |
| 628     | 6                          | 6     | Mod. 5-Spot       | 8                            | 52                 | 85    | Lower Rob. Sd                                   | B                          | 3.1                        | 603                        |  |
| 629     | 14                         | 19    | 5-Spot            | 7                            | 80                 | 98    | Gr Bed  | F                          | 4.1                        | 495                        |  |
| 630     | 9                          | 13    | 5-Spot            | 10                           | 58                 | 60    | Gr Bed  | F                          | 5.5                        | 270                        |  |
| 631     | 24                         | 41    | 5-Spot            | 10                           | 220                | 277   | Tar Springs                                     | B                          | 6.6                        | 540                        |  |
| 632     | 9                          | 32    | 5-Spot            | 10                           | 110                | 300   | Mississippian                                   | B                          | 10.0                       | 460                        |  |
| 633     | 2                          |       |                   |                              |                    |       |   |                            |                            | 435                        |  |
| 634     | 3                          | 16    | 5-Spot            | 10                           | 35                 | 90    | Gr Bed & Penn. Sd                               | F & B                      | 3.7                        | 457                        |  |
| 635     | 1                          |       |                   |                              |                    |       |   |                            |                            | 550                        |  |
| 636     | 10                         | 15    | 5-Spot            | 10                           | 94                 | 93.5  |   | F                          | 3.0                        | 350                        |  |
| 637     | 4                          | 7     | 5-Spot            | 10                           | 40                 | 40    | Gr Bed  | F                          | 4.9                        | 480                        |  |
| 638     | 24                         | 40    | 5-Spot            | 4.4                          | 91                 | 115   | Gr Bed & Penn. Sd                               | F & B                      | 3.0                        | 450                        |  |
| 639     | 10                         | 14    | 5-Spot            | 10                           | 35                 | 110   |   | F                          | 2.0                        | 470                        |  |
| 640     | 5                          | 7     |                   |                              | 40                 | 40    | Tar Springs                                     | B                          | 5.8                        | 620                        |  |



TABLE 13. —

| Map No. |                         |                        |                            |                      |                         | General             |
|---------|-------------------------|------------------------|----------------------------|----------------------|-------------------------|---------------------|
|         | Field<br>C=Consolidated | Operator               | County                     | Project<br>U=Unit    | Date first<br>injection | Formation           |
| 641     | Main C                  | Tidewater              | Crawford                   | Stifle-Drake         | 6-53                    | Robinson            |
| 642     | Main C                  | Tidewater              | Crawford                   | Stahl-Walters        | 11-54                   | Robinson            |
| 643     | Main C                  | Wilson*                | Crawford                   | Hughes-Walker        | 8-55                    | Robinson            |
| 644     | Main C                  | Wiser*                 | Crawford                   | H. J. Musgrave       | 10-55                   | Robinson            |
| 645     | Main C                  | Wyman*                 | Crawford                   |                      |                         | Robinson            |
| 1008    | Maple Grove C           | Ashland                | Edwards                    | Bennington           | 9-52                    | McClosky            |
| 1009    | Maple Grove C           | Investment Oil*        | Edwards                    | Graede & Miller      | 7-55                    | McClosky            |
| 4127    | Maple Grove C           | Winmar                 | Wayne                      | W. Bennington*       | 1-57                    | Aux Vases           |
| 2003    | Markham City            | Tidewater              | Jefferson                  | Newton               | 8-55                    | McClosky            |
| 2004    | Markham City W.         | Gulf                   | Jefferson                  | Markham City W.      | 4-54                    | Aux Vases & McCl.   |
| 214     | Martinsville            | Froderman & Connelly   | Clark                      | Froderman & Connelly |                         | Partlow             |
| 500     | Mattoon                 | Carter                 | Coles                      | Mattoon              | 5-52                    | Rosi. & Cyp.        |
| 501     | Mattoon                 | Nokill*                | Coles                      | Mattoon              | 11-50                   | Rosiclare           |
| 4213    | Maunie S.               | Magnolia               | White                      | Palestine U          | 2-53                    | Palestine           |
| 1505    | Mill Shoals             | B. Kidd                | Hamilton                   | Gardner              | 9-56                    | Aux Vases           |
| 1506    | Mill Shoals             | Sohio                  | Hamilton                   | B. R. Gray           | 5-52                    | Aux Vases           |
| 3917    | Mt. Carmel              | G. S. Engle*           | Wabash                     | G. Dunkel            | 6-52                    | Biehl               |
| 3918    | Mt. Carmel              | First Nat'l Pet. Trust | Wabash                     | Wabash U             | 10-57                   | McClosky            |
| 3919    | Mt. Carmel              | T. W. George*          | Wabash                     | Wabash               | 8-55                    | Cypress             |
| 3920    | Mt. Carmel              | T. W. George*          | Wabash                     | N. Mt. Carmel        |                         | Cypress             |
| 3921    | Mt. Carmel              | O'Meara Bros.*         | Wabash                     | Mt. Carmel           | 7-54                    | Cypress             |
| 3922    | Mt. Carmel              | Shell                  | Wabash                     | Mt. Carmel U         | 7-54                    | Cypress             |
| 3923    | Mt. Carmel              | Skiles                 | Wabash                     | Chapman-Courter      | 1-55                    | Cypress             |
| 3924    | Mt. Carmel              | Skiles                 | Wabash                     | W. Mt. Carmel        | 10-55                   | Tar Springs         |
| 3925    | Mt. Carmel              | Texas                  | Wabash                     | Stein                | 2-52                    | Tar Springs         |
| 3926    | New Harmony C           | Ashland                | Wabash                     | Maud N.              | 4-56                    | Benoist             |
| 3927    | New Harmony C           | Ashland                | Wabash                     | Ravenstein           | 5-57                    | Benoist             |
| 4214    | New Harmony C           | Arrow*                 | White                      | *                    | 9-56                    | Aux Vases           |
| 4215    | New Harmony C           | Arrow*                 | White                      | *                    | 9-56                    | Benoist             |
| 4216    | New Harmony C           | Arrow*                 | White                      | *                    | 9-56                    | L. Cypress          |
| 4217    | New Harmony C           | Arrow*                 | White                      | *                    | 9-56                    | M. McClosky         |
| 4218    | New Harmony C           | Calstar                | White                      | Ford                 | 1-56                    | Aux Vases           |
| 4219    | New Harmony C           | Calstar                | White                      | Ford "B"             | 3-53                    | Bethel              |
| 3928    | New Harmony C           | Cities Service         | Wabash                     | Brines U             | 8-56                    | Benoist             |
| 4220    | New Harmony C           | Clark & Clark          | White                      | Maunie N. U          | 9-57                    | Aux Vases           |
| 4221    | New Harmony C           | Coy*                   | White                      |                      |                         | Cypress & Aux Vases |
| 3907    | New Harmony C           | T. W. George*          | Wabash                     | E. Maud              | 7-52                    | Bethel              |
| 3947    | New Harmony C           | T. W. George*          | Wabash                     | E. Maud              | 1-55                    | Cypress             |
| 4224    | New Harmony C           | Herndon & Ashland      | White                      | Calvin               | 11-52                   | Aux Vases           |
| 4225    | New Harmony C           | Herndon                | White                      | Calvin               |                         | Benoist             |
| 4226    | New Harmony C           | Herndon                | White                      | Calvin               | 6-57                    | Cypress             |
| 4227    | New Harmony C           | Inland                 | White                      | Bowman's Bend U      | 12-53                   | Tar Springs         |
| 3936    | New Harmony C           | Luboil                 | Wabash                     | Helm                 | 11-54                   | Cypress "A"         |
| 3937    | New Harmony C           | Luboil                 | Wabash                     | Helm                 | 10-54                   | Cypress "C"         |
| 3938    | New Harmony C           | Luboil                 | Wabash                     | Helm                 | 12-51                   | Aux Vases           |
| 3939    | New Harmony C           | Luboil                 | Wabash                     | Helm                 | 12-51                   | Benoist             |
| 3940    | New Harmony C           | Luboil                 | Wabash                     | Helm                 | 12-50                   | Waltersburg         |
| 3929    | New Harmony C           | Phillips               | Wabash                     | Shultz Lease         | 7-51                    | Lower Cyp.          |
| 3930    | New Harmony C           | Phillips               | Wabash                     | Shultz Lease         | 5-52                    | Upper Cyp.          |
| 4231    | New Harmony C           | Sinclair               | White                      | M. S. Donald         | 10-56                   | Aux Vases           |
| 3931    | New Harmony C           | Skiles                 | Wabash & Edwards           | Siegert Bottoms      | 10-51                   | Bethel              |
| 3932    | New Harmony C           | Skiles                 | Wabash                     | E. Maud              | 4-52                    | Bethel              |
| 3933    | New Harmony C           | Skiles                 | Wabash                     | E. Maud              | 11-52                   | Cypress             |
| 3934    | New Harmony C           | Skiles                 | Wabash                     | W. Maud              | 10-50                   | Bethel              |
| 3935    | New Harmony C           | Sohio                  | Wabash                     | Griffin N.           | 10-55                   | Cypress             |
| 4233    | New Harmony C           | Sun                    | White                      | Ford "B"*            | 3-53                    | Aux Vases           |
| 4234    | New Harmony C           | Sun                    | White                      | Ford "B"*            | 3-53                    | Bethel              |
| 4235    | New Harmony C           | Superior               | White                      | Kern-Hon U           | 2-54                    | Tar Springs         |
| 4236    | New Harmony C           | Superior               | White, Ill.<br>Posey, Ind. | New Harmony U        | 11-56                   | Aux Vases           |
| 4237    | New Harmony C           | Superior               | White, Ill.<br>Posey, Ind. | New Harmony U        | 11-56                   | Bethel              |

WATERFLOOD OPERATIONS

(Continued)

| Information        |           |                      | Production and injection statistics (thousand bbls.) |       |                     |            |                     |            | Map No. |                     |
|--------------------|-----------|----------------------|--|-------|---------------------|------------|---------------------|------------|---------|---------------------|
| Location           |           | Curtailed during '57 | Secondary recovery                                   |       |                     |            |                     |            |         |                     |
| Sec.               | T.-R.     |                      | Inj.   | Prod. | Water injection     |            | Oil production      |            |         | Water production    |
|                    |           | Total 1957           |  |       | Cumulative 12-31-57 | Total 1957 | Cumulative 12-31-57 | Total 1957 |         | Cumulative 12-31-57 |
| 10                 | 7N-13W    |                      |  | 270   | 1,149               | 10.7       | 46                  | 101        | 349     | 641                 |
| 13, 14             | 7N-13W    |                      |  | 51    | 167                 | 18.1       | 37                  | 43         | 103     | 642                 |
| 26                 | 6N-13W    |                      |  |       |                     |            |                     |            |         | 643                 |
| 18                 | 7N-12W    |                      |  | 173   | 366                 | 0.4†       | 4‡                  |            |         | 644                 |
| 34                 | 6N-12W    |                      |  |       |                     |            |                     |            |         | 645                 |
| 7                  | 1N-10E    |                      |  | 66    | 347                 | 10.5       | 96*                 |            |         | 1008                |
| 8, 9               | 1N-10E    |                      |  | ‡     | ‡                   |            | 8‡                  |            |         | 1009                |
| 13                 | 1N-9E     |                      |  | 37*   | 37*                 | 7.4‡       | 7‡                  | 7          | 1       | 4127                |
| 1                  | 3S-4E     |                      |  | †     | †                   | 1.0*       | 2*                  | 7‡         | 7‡      | 2003                |
| 3, 4, 9, 10        | 3S-4E     | x                    | x  | 737   | 1,345               | 49.5       | 80                  | 184        | 910     | 2004                |
| 13                 | 9N-14W    |                      |  | 720   | 2,160*              | 33.9       | 61‡                 |            |         | 214                 |
| 35                 | 12N-7E    |                      |  | 1,227 | 5,541               | 158.9      | 374                 | 747        |         | 500                 |
| 22                 | 12N-7E    |                      |  |       |                     |            |                     |            |         | 501                 |
| 13, 18, 24         | 6S-10&11E |                      |  | 1,690 | 7,719               | 113.1      | 1,496*              | 1,761      | 5,115   | 4213                |
| 24                 | 3S-7E     |                      | x  | *     | *                   | 3.5‡       | 4‡                  |            |         | 1505                |
| 1                  | 4S-7E     | x                    | x  | 233   | 1,421               | 19.9       | 286                 | 152        | 494     | 1506                |
| 5                  | 1S-12W    |                      |  | 0.4   | 0.4                 | None       | None                | None       | None    | 3917                |
| 4, 5               | 1S-12W    |                      |  |       |                     |            |                     |            |         | 3918                |
| 32                 | 1N-12W    |                      |  |       |                     |            |                     |            |         | 3919                |
|                    |           |                      |  |       |                     |            |                     |            |         | 3920                |
| 17                 | 1S-12W    |                      |  |       |                     |            |                     |            |         | 3921                |
| 17, 18             | 1S-12W    | x                    | x  | 637   | 2,671               | 161.2      | 507                 | 397        | 672     | 3922                |
| 7, 18              | 1S-12W    |                      |  | 132   | 474                 | 57.5       | 163                 | 57         | 103     | 3923                |
| 18                 | 1S-12W    | x                    | x  | 127   | 257                 | 10.4       | 66*                 | 34         | 37      | 3924                |
| 5, 8               | 1S-12W    |                      |  | 87    | 530                 | 5.1        | 79                  | 79         | 331     | 3925                |
| 5, 6, 7, 8         | 2S-13W    |                      |  | 68    | 157                 | 31.7       | 39*                 |            |         | 3926                |
| 32                 | 1S-13W    |                      |  | 23    | 23                  | 5.7        | 6                   |            |         | 3927                |
| 32, 33             | 3S-14W    |                      |  | 183   | 269                 | 11.9       | 16                  |            |         | 4214                |
| 5                  | 4S-14W    |                      |  |       |                     |            |                     |            |         |                     |
| 32                 | 3S-14W    |                      |  | 152   | 211                 | 10.0       | 13                  |            |         | 4215                |
| 33                 | 3S-14W    |                      |  | 130   | 176                 | 8.5        | 11                  |            |         | 4216                |
| 32, 33             | 3S-14W    |                      |  | 342   | 405                 | 22.4       | 30                  |            |         | 4217                |
| 5                  | 4S-14W    |                      |  |       |                     |            |                     |            |         |                     |
| 21, 22             | 4S-14W    |                      |  | 379   | 919                 | 66.0*      | 129*                |            |         | 4218                |
| 21                 | 4S-14W    |                      |  |       |                     | 95.3*      | 167*                |            |         | 4219                |
| 17, 20, 21, 28, 29 | 1S-13W    |                      |  | 1,149 | 1,291               | 157.7      | 158                 | 32         | 35      | 3928                |
| 18, 19             | 6S-14W    |                      |  | 172   | 172                 | None       | None                |            |         | 4220                |
| 17                 | 4S-14W    |                      |  |       |                     |            |                     |            |         | 4221                |
| 32, 33             | 1S-13W    |                      |  |       |                     |            |                     |            |         | 3907                |
| 32, 33             | 1S-13W    |                      |  |       |                     |            |                     |            |         | 3947                |
| 5, 8               | 4S-14W    |                      |  | 977   | 3,026               | 164.2      | 403*                |            |         | 4224                |
| 8                  | 4S-14W    |                      |  | 370   | 671.8               | *          | *                   |            |         | 4225                |
| 8                  | 4S-14W    |                      |  | 27    | 27                  | *          | *                   |            |         | 4226                |
| 15, 16, 21, 22     | 5S-14W    |                      |  | 604   | 2,532               | 213.0      | 778*                | 330        | 937‡    | 4227                |
| 22                 | 3S-14W    |                      |  | 255   | 617                 | 323.6*     | 2,307*              | 898*       |         | 3936                |
| 22                 | 3S-14W    |                      |  | 239   | 683                 | *          | *                   | *          |         | 3937                |
| 22                 | 3S-14W    |                      |  | 594   | 2,490               | *          | *                   | *          |         | 3938                |
| 22                 | 3S-14W    |                      |  | 649   | 3,848               | *          | *                   | *          |         | 3939                |
| 22                 | 3S-14W    |                      |  | 296   | 1,630               | *          | *                   | *          |         | 3940                |
| 7                  | 3S-14W    |                      |  | 207   | 2,464               | 6.9        | 118                 | 238        | 1,881   | 3929                |
| 7                  | 3S-14W    |                      |  | 79    | 789                 | 0.5        | 42                  | 15         | 329     | 3930                |
| 21, 28             | 4S-14W    |                      | x  | 199   | 241                 | 3.0        | 3                   |            |         | 4231                |
| 34                 | 2S-14W    |                      |  | 245   | 1,906               | 57.8       | 435                 | 145        | 302     | 3931                |
| 2, 3, 10           | 3S-14W    |                      |  |       |                     |            |                     |            |         |                     |
| 4, 5               | 2S-13W    |                      |  | 137   | 719                 | 37.3       | 180                 | 42         | 129     | 3932                |
| 32, 33             | 1S-13W    |                      |  |       |                     |            |                     |            |         |                     |
| 4, 5               | 2S-13W    |                      |  | 148   | 590                 | 13.3       | 69                  | 38         | 232     | 3933                |
| 32, 33             | 1S-13W    |                      |  |       |                     |            |                     |            |         |                     |
| 32                 | 1S-13W    |                      |  | 179   | 1,724               | 25.7       | 325                 | 21         | 282     | 3934                |
| 5                  | 2S-13W    |                      |  |       |                     |            |                     |            |         |                     |
| 14                 | 3S-14W    | x                    | x  | 257   | 341                 | 217.8      | 563*                | 257        | 341     | 3935                |
| 21                 | 4S-14W    |                      |  | 49    | 191                 | 30.7       | 36                  | 25         | 29      | 4233                |
| 21                 | 4S-14W    |                      |  | 99    | 430                 | 4.0        | 50                  | 71         | 192     | 4234                |
| 32, 33             | 4S-14W    |                      |  | 139   | 665                 | 57.3       | 316                 | 50         | 183     | 4235                |
| 27, 33, 34         | 4S-14W    |                      |  | 1,476 | 1,516               | *          | *                   | *          | *       | 4236                |
| 27, 33, 34         | 4S-14W    |                      |  | 2,855 | 6,519*              | 146.5      | 799*                | 658        | 4,836‡  | 4237                |

TABLE 13.—

| Map No. | Development as of 12-31-57 |       |                   |                              |                    |            | Injection water                                 |                            |                                    |                            |
|---------|----------------------------|-------|-------------------|------------------------------|--------------------|------------|---|----------------------------|------------------------------------|----------------------------|
|         | No. of wells               |       | Injection pattern | Spacing acres per input well | Productive acreage |            | Source<br>Sd=Sand<br>Gr=Gravel<br>Prod=Produced | Type<br>F=Fresh<br>B=Brine | Av. bbls. per day per well per ft. | Av. well-head pressure PSI |
|         | Inj.                       | Prod. |                   |                              | Sub-jected to inj. | Total      |   |                            |                                    |                            |
| 641     | 6                          | 24    | 5-Spot            | 10                           | 33                 | 160        | Penn. Sd  | B                          | 8.6                                | 400                        |
| 642     | 4                          | 5     |                   |                              | 37                 | 80         | Gr Bed  | F                          | 0.2                                | 466                        |
| 643     |                            |       |                   |                              |                    |            |   |                            |                                    |                            |
| 644     | 2                          | 7     | 5-Spot            |                              | 40                 | 160        | Purchased                                       | F                          | 7.9                                | 320                        |
| 645     |                            |       |                   |                              |                    |            |   |                            |                                    |                            |
| 1008    | 1                          | 6     | Flank             |                              | 110                | 110        | Prod  | B                          | 36.0                               |                            |
| 1009    | 1                          | 2     |                   |                              | 20                 | 118        | 540'-600' Sd                                    | F                          |                                    |                            |
| 4127    | 1                          | 5     |                   |                              | 160                | 160        | Cypress   | B                          | 6.7                                | 773                        |
| 2003    | 1                          | 1     |                   | 40                           | 40                 | 40         | Cypress   | B                          | 0.4                                |                            |
| 2004    | 12                         | 13    | Mod. 5-Spot       | 20                           | A. V.-25<br>Mc.-30 | 210<br>150 | Cypress & Prod                                  | B                          | 4.5                                | A.V.-359<br>Mc.-120        |
| 214     | 50                         | 42    |                   |                              | 240                | 500        | Pond  | F                          | 1.6                                | 300                        |
| 500     | 29                         | 34    | 5-Spot            | 20                           | 461                | 610        | Sewage Effluent & Prod                          | F & B                      | 8.9                                | 735                        |
| 501     |                            |       |                   |                              |                    |            |   |                            |                                    |                            |
| 4213    | 31                         | 26    | 5-Spot            | 20                           | 448                | 570        | Gr Bed & Prod                                   | F & B                      |                                    |                            |
| 1505    | 1                          | 2     |                   | 10                           | 30                 | 30         | Hardinsburg                                     | B                          |                                    |                            |
| 1506    | 8                          | 7     | 5-Spot            | 20                           | 170                | 170        | Gr Bed  | F                          | 7.2                                | 260                        |
| 3917    |                            |       |                   |                              |                    |            |   |                            |                                    |                            |
| 3918    | 1                          | 2     |                   |                              | 30                 | 60         | Prod  | B                          | 0.6                                |                            |
| 3919    |                            |       |                   |                              |                    |            |   |                            |                                    |                            |
| 3920    |                            |       |                   |                              |                    |            |   |                            |                                    |                            |
| 3921    |                            |       |                   |                              |                    |            |   |                            |                                    |                            |
| 3922    | 20                         | 27    | 5-Spot            | 20                           | 325                | 570        | Gr Bed*   | F                          | 6.7                                | 440                        |
| 3923    | 4                          | 7     | Peripheral        |                              | 100                | 100        | River & Prod                                    | F & B                      | 4.7                                | 595                        |
| 3924    | 3                          | 3     |                   | 10                           | 70                 | 40         | Prod  | B                          | 19.3                               | 1,351                      |
| 3925    | 2                          | 8     | Flank             |                              | 30                 | 73         | Shallow Sd & Prod                               | F & B                      | 10.0                               | 1,326                      |
| 3926    | 5                          | 10    |                   | 20                           | 137                | 150        | Purchased                                       | B                          | 5.8                                | 1,463                      |
| 3927    | 1                          | 2     |                   |                              | 20                 |            | Purchased                                       | B                          | 15.4                               | 1,436                      |
| 4214    | 9                          | 11    |                   |                              | 163                | 323        | River & Gr                                      | F                          | 3.9                                | 755                        |
| 4215    | 4                          | 4     | 5-Spot            | 20                           | 60                 | 131        | River & Gr                                      | F                          | 9.6                                | 755                        |
| 4216    | 3                          | 5     | 5-Spot            | 20                           | 45                 | 165        | River & Gr                                      | F                          | 13.3                               | 748                        |
| 4217    | 4                          | 7     | 5-Spot            | 20                           | 85                 | 302        | River & Gr                                      | F                          | 24.8                               | 16                         |
| 4218    | 7                          | 7     | 5-Spot            | 10                           | 95                 | 215        | Gr  | F                          | 8.0                                | 1,200                      |
| 4219    | 1                          | 3     |                   | 20                           | 20                 | 35         | Gr  | F                          |                                    |                            |
| 3928    | 28                         | 33    | 5-Spot            | 20                           | 524                | 600        | Penn. Sd  | B                          | 6.6                                |                            |
| 4220    | 11                         | 8     |                   | 10                           | 190                | 180        | Well  | F                          |                                    | None                       |
| 4221    |                            |       |                   |                              |                    |            |   |                            |                                    |                            |
| 3907    |                            |       |                   |                              |                    |            |   |                            |                                    |                            |
| 3947    |                            |       |                   |                              |                    |            |   |                            |                                    |                            |
| 4224    | 16                         | 18    | Line              | 10                           | 200                | 250        |   | F                          | 5.6                                | 729                        |
| 4225    | 9                          | 8     |                   | 10                           | 90                 | 90         |   | F                          | 7.5                                | 650                        |
| 4226    | 3                          | 7     |                   |                              |                    |            |   | F                          |                                    | 847                        |
| 4227    | 3                          | 14    | Peripheral        |                              | 200                | 200        | Gr Bed & Prod                                   | F & B                      | 28.3                               | 449                        |
| 3936    | 6                          | 11    |                   |                              | 120                |            | Gr Bed  | F                          |                                    | 1,000                      |
| 3937    | 4                          | 11    |                   |                              | 120                |            | Gr Bed  | F                          |                                    | 1,200                      |
| 3938    | 19                         | 26    |                   |                              | 260                |            | Gr Bed  | F                          | 7.0                                | 1,200                      |
| 3939    | 32                         | 29    |                   |                              | 255                |            | Gr Bed  | F                          | 3.9                                | 1,200                      |
| 3940    | 4                          | 3     |                   |                              | 30                 |            | Gr Bed  | F                          | 8.1                                | 900                        |
| 3929    | 2                          | 3     |                   | 10                           | 21                 | 70         | Upper Sd & Prod                                 | F & B                      | 14.2                               | 644                        |
| 3930    | 1                          | 1     |                   | 10                           | 9                  | 30         | Upper Sd & Prod                                 | F & B                      | 21.5                               | 644                        |
| 4231    | 2                          | 6     | Peripheral        |                              | 105                | 123        | Well  | F                          | 9.7                                | 543                        |
| 3931    | 19                         | 24    | 5-Spot            | 20                           | 390                | 430        | Gr & Prod                                       | F & B                      | 1.9                                | 1,480                      |
| 3932    | 9                          | 17    | 5-Spot            | 20                           | 250                | 280        | Creek & Upper Sd                                | F                          | 4.9                                | 1,500                      |
| 3933    | 2                          | 9     | 5-Spot            | 20                           | 20                 | 100        | Creek & Upper Sd                                | F                          | 25.3                               | 565                        |
| 3934    | 12                         | 13    | 5-Spot            | 20                           | 340                | 430        | Creek & Upper Sd                                | F                          | 3.4                                | 1,469                      |
| 3935    | 1                          | 12    | Line              |                              | 120                | 200        | Prod  | B                          | 28.2                               | 200                        |
| 4233    | 1                          | 5     |                   |                              | 20                 | 80         | Gr Bed  | F                          | 13.5                               | 1,402                      |
| 4234    | 1                          | 4     |                   |                              | 40                 | 20         | Gr Bed  | F                          | 22.6                               | 1,081                      |
| 4235    | 3                          | 5     | Mod. Split Line   |                              | 121                | 121        | Gr Bed  | F                          | 9.5                                | 1,168                      |
| 4236    | A.V.9<br>Dual-45           | 81    | 5-Spot            | 20                           | 2,029              | 2,029      | Shallow & Prod                                  | F & B                      |                                    | 277                        |
| 4237    | B-28<br>Dual-45 133        |       | 5-Spot            | 20                           | 2,576              | 2,576      | Shallow & Prod                                  | F & B                      |                                    | 381                        |

(Continued)

| Reservoir statistics (average values) |                        |                   |                          |                 |                           | Remarks   | Map No. |
|---------------------------------------|------------------------|-------------------|--------------------------|-----------------|---------------------------|---|---------|
| Depth feet                            | Net pay thickness feet | Porosity per cent | Permeability millidarcys | Oil gravity API | Oil viscosity centipoises |   |         |
| 980                                   | 15.0                   | 18.2              | 221                      | 33.5            |                           | Subjected to gas injection since 1934.  | 641     |
| 987                                   | 19.0                   |                   |                          |                 |                           |   | 642     |
| 880                                   | 25.0                   | 19.0              | 83                       | 32.0            |                           | Previously subjected to gas injection. *No 1957 data available.   | 643     |
| 1,010                                 | 30.0                   | 21.1              | 334                      |                 |                           | *Operated by Tidewater. †Includes primary production 1-1-56 to 1-1-57. ‡Estimated.  | 644     |
| 3,100                                 | 5.0                    |                   |                          | 38.0            |                           | *No data available.   | 645     |
| 3,275                                 | 5.0                    |                   |                          | 36.0            |                           | *Includes primary production since start of flood.  | 1008    |
|                                       |                        |                   |                          |                 |                           | *Sold to Illinois lease operating during 1957. ‡Dump flood. †Includes primary production since start of flood.  | 1009    |
| 3,150                                 | 15.0                   | 24.0              | 50                       | 37.0            |                           | *Pilot dump flood. †Includes primary production since 5-57.   | 4127    |
| 3,080                                 | 6.0                    |                   |                          |                 |                           | †Dump flood. *Estimated; includes primary production since 1-1-56. ‡As of 1-1-57.   | 2003    |
| 2,900                                 | 22.1                   |                   | 269                      |                 | 3.2 @ 99°F                |   |         |
| 3,000                                 | 15.4                   |                   | 230                      | 38.0            | 2.8 @ 104°F               |   | 2004    |
| 415 575                               | 25.0                   | 24.0              | 43                       | 32.0            |                           | *Estimated injection since 1-1-56. †Includes primary production since 7-1-55.   | 214     |
| C-1,750                               | 13.0                   | 16.0              | 84                       | 39.0            | 1.7 @ 85°F                |   | 500     |
| R-1,950                               |                        |                   |                          |                 |                           |   |         |
| 1,952                                 | 10.0                   | 15.0              | 990                      | 37              |                           | *No 1957 data available.  | 501     |
| 2,010                                 |                        |                   |                          |                 |                           | *Includes primary production since start of flood.  | 4213    |
| 3,243                                 | 11.0                   |                   |                          |                 |                           | *Dump flood. †Includes primary production since 1-1-57.   | 1505    |
| 3,245                                 | 11.0                   | 21.0              |                          |                 |                           | *Includes primary production since start of flood.  | 1506    |
| 1,500                                 | 6.7                    | 15.3              | 310                      | 36.6            | 3.9 @ 104°F               | *No 1957 data available.  | 3917    |
| 2,307                                 | 8.0                    |                   |                          |                 |                           |   | 3918    |
| 2,000                                 | 14.0                   |                   |                          |                 |                           | *No 1957 data available.  | 3919    |
|                                       |                        |                   |                          |                 |                           | *No data available.   | 3920    |
| 2,140                                 | 13.0                   |                   |                          | 33.0            |                           | *No 1957 data available.  | 3921    |
| 2,075                                 | 13.6                   | 19.0              | 182                      | 38.8            |                           | *100% source water since 4-1-57. Prior to this, fresh water had been augmented with brine for injection.  | 3922    |
| 2,230                                 | 19.0                   | 18.2              | 147                      |                 |                           |   | 3923    |
| 1,729                                 | 6.0                    |                   |                          |                 |                           | *Corrected figure.  | 3924    |
| 2,040                                 | 11.6                   | 18.9              | 221                      | 30.0            | 4.0                       |   | 3925    |
| 2,650                                 | 6.5                    | 16.0              | 60                       |                 |                           | *Includes primary production since start of flood.  | 3926    |
| 2,650                                 | 7.0                    | 16.0              | 65                       |                 |                           |   | 3927    |
| 2,800                                 | 14.3                   | 13.3              | 2                        | 33.7            | 4.7 @ 97°F                | *Arrow-McBride, Hon-Bump-Crawford water flood.  | 4214    |
| 2,650                                 | 10.8                   | 12.7              | 3                        | 35.5            | 4.5 @ 96°F                | *Arrow-McBride, Hon-Bump-Crawford water flood.  | 4215    |
| 2,600                                 | 8.9                    | 15.6              | 8                        | 34.5            | 6 @ 96°F                  | *Arrow-McBride, Hon-Bump-Crawford water flood.  | 4216    |
| 2,900                                 | 9.4                    |                   |                          | 34.5            | 4.2 @ 98°F                | *Arrow-McBride, Hon-Bump-Crawford water flood.  | 4217    |
| 2,840                                 | 18.3                   | 15.0              | 20                       | 33.1            | 4.8 @ 70°F                | *Estimated.   | 4218    |
| 2,695                                 | 12.0                   |                   |                          | 37.5            | 3.7 @ 96°F                | *Estimated.   | 4219    |
| 2,600                                 | 17.0                   | 16.0              | 35                       | 35.0            |                           |   | 3928    |
|                                       |                        |                   |                          |                 |                           |   | 4220    |
|                                       |                        |                   |                          |                 |                           | *No data available.   | 4221    |
| 2,500                                 | 15.0                   | 17.0              | 57                       | 36.1            | 5.1 @ 94°F                | *No 1957 data available.  | 3907    |
| 2,400                                 | 12.0                   |                   |                          |                 |                           | *No 1957 data available.  | 3947    |
| 2,800                                 | 30.0                   | 14.0              | 10                       | 41.0            |                           | *Production from Jan. to Nov., 1954 not included. Previously subjected to gas injection.  | 4224    |
| 2,700                                 | 15.0                   |                   |                          |                 |                           | *Included in Aux Vases production.  | 4225    |
| 2,260                                 | 19.5                   | 17.9              | 120                      | 35.5            |                           | *Included in Aux Vases production.  | 4226    |
|                                       |                        |                   |                          |                 |                           | *Includes primary production since 1-1-54. †From 1-1-54.  | 4227    |
|                                       |                        |                   |                          |                 |                           | *Includes oil and water production from Cypress "C," Aux Vases, Benoist, and Waltersburg.   | 3936    |
| 2,750                                 | 12.0                   | 16.0              | 20                       |                 |                           | *Included with Cypress "A."   | 3937    |
| 2,640                                 | 14.0                   | 17.1              | 44                       |                 |                           | *Included with Cypress "A."   | 3938    |
| 2,115                                 | 25.0                   | 20.1              | 171                      |                 |                           | *Included with Cypress "A."   | 3939    |
| 2,500                                 | 20.0                   | 18.0              | 50                       | 37.5            |                           |   | 3940    |
| 2,500                                 | 10.0                   | 17.0              | 100                      | 37.5            |                           |   | 3929    |
| 2,811                                 | 28.0                   |                   |                          | 36              |                           |   | 3930    |
|                                       |                        |                   |                          |                 |                           |   | 4231    |
| 2,680                                 | 18.0                   | 17.0              | 75                       | 36.5            | 3.8 @ 81°F                |   | 3931    |
| 2,520                                 | 8.5                    | 17.0              | 57                       | 36.1            | 5.1 @ 94°F                |   | 3932    |
| 2,400                                 | 8.0                    | 18.5              | 75                       | 36.2            | 5.0 @ 90°F                |   | 3933    |
| 2,620                                 | 12.0                   | 17.2              | 57                       | 37.0            | 4.6                       |   | 3934    |
| 2,500                                 | 25.0                   | 21.0              | 200                      |                 |                           | *Total lease production—Cypress, Benoist, Aux Vases, and McClosky commingled.   | 3935    |
| 2,855                                 | 10.0                   | 13.0              | 30                       | 32.5            |                           | *Cooperative pilot flood with Calstar.  | 4233    |
| 2,696                                 | 12.0                   |                   |                          | 32.5            |                           | *Cooperative pilot flood with Calstar.  | 4234    |
| 2,250                                 | 13.3                   | 17.3              | 44                       | 38.0            | 5.5 @ 85°F                |   | 4235    |
| 2,460                                 | 8.9                    | 17.9              | 48                       | 36.4            | 3.7 @ 96°F                | *Included with Bethel production.   | 4236    |
| 2,340                                 | 12.4                   | 15.4              | 32                       | 36.8            | 4.3 @ 94°F                | *Figures include cumulative injection and secondary production prior to unit operation. †Cumulative water production from all zones within unit area. | 4237    |



TABLE 13.—

| Map No. |                         |                  |                            |                    |                            | General         |
|---------|-------------------------|------------------|----------------------------|--------------------|----------------------------|-----------------|
|         | Field<br>C=Consolidated | Operator         | County                     | Project<br>U=Unit  | Date<br>first<br>injection | Formation       |
| 4238    | New Harmony C           | Superior         | White, Ill.<br>Posey, Ind. | Waltersburg U      | 8-46                       | Waltersburg     |
| 3948    | New Harmony C           | Swan*            | Wabash                     |                    |                            | Cypress         |
| 4240    | New Harmony C           | Tidewater        | White                      | E. S. Dennis "A"   | 7-51                       | Bethel          |
| 4241    | New Harmony C           | Tidewater        | White                      | Evans              | 10-49                      | Aux Vases       |
| 4242    | New Harmony C           | Tidewater        | White                      | Evans              | 1-56                       | Biehl           |
| 4243    | New Harmony C           | Tidewater        | White                      | Evans              |                            | McClosky        |
| 4244    | New Harmony C           | Tidewater        | White                      | E. S. Dennis "A"   | 9-57                       | Aux Vases       |
| 3949    | New Harmony C           | West*            | Wabash                     | C. W. Raber        | 10-56                      | Biehl           |
| 4247    | New Haven C             | Hiawatha         | White                      | New Haven          | 7-54                       | Cypress         |
| 4248    | New Haven C             | Hiawatha         | White                      | New Haven          | 7-54                       | Tar Springs     |
| 2600    | Odin                    | Ashland          | Marion                     | Odin               | 10-49                      | Cypress         |
| 000     | Old Ripley              | Cahill & Smith   | Bond                       | Ripley             | 9-57                       | Penn.           |
| 3408    | Olney C                 | Texas            | Richland                   | E. Olney           | 3-51                       | McClosky        |
| 307     | Oskaloosa               | Texas            | Clay                       | Oskaloosa          | 1-53                       | Benoist         |
| 3409    | Parkersburg C           | Ohio*            | Richland                   | Parkersburg U      | 3-55                       | McClosky        |
| 308     | Passport                | Magnolia         | Clay                       | Stanley            | 9-57                       | McClosky        |
| 2601    | Patoka                  | Sohio            | Marion                     | Patoka Ben.        | 9-43                       | Benoist         |
| 2602    | Patoka                  | Sohio            | Marion                     | Patoka Rosi.       | 48                         | Rosiclare       |
| 2603    | Patoka                  | Sohio            | Marion                     | Stein U            | 8-51                       | Cypress         |
| 4249    | Phillipstown C          | C. E. Brehm      | White                      | Phillipstown U B   | 1-54                       | Cypress         |
| 4250    | Phillipstown C          | Bristol*         | White                      | Grayville          | 8-54                       | L. Cypress      |
| 4251    | Phillipstown C          | British American | White                      | N. Calvin          | 6-51                       | Penn. #7        |
| 4252    | Phillipstown C          | Magnolia         | White                      | Schmidt-Seifried U | 5-51                       | Biehl           |
| 4253    | Phillipstown C          | Phillips         | White                      | Flora U            | 9-53                       | Degonia         |
| 4254    | Phillipstown C          | Phillips         | White                      | Laura              | 3-52                       | Bethel          |
| 4255    | Phillipstown C          | Phillips         | White                      | Phillipstown U     | 10-57                      | Ben. & A. V.    |
| 4256    | Phillipstown C          | Sun              | White                      | Phillipstown       | 12-55                      | Clore           |
| 4257    | Phillipstown C          | Sun              | White                      | Phillipstown       | 2-56                       | Tar Springs     |
| 4258    | Roland C                | Carter           | White                      | S. W. Roland       | 6-55                       | Waltersburg     |
| 4259    | Roland C                | Carter           | White                      | Stokes             | 7-54                       | Hardinsburg     |
| 4262    | Roland C                | T. W. George*    | White &<br>Gallatin        | Pankey-Morehead U  | 10-56                      | Cypress         |
| 1413    | Roland C                | Ind. Farm Bureau | Gallatin                   | Omaha              | 3-53                       | Waltersburg     |
| 4260    | Roland C                | Pure             | White                      | Stokes-Brownsville | 4-56                       | Hardinsburg     |
| 4261    | Roland C                | Shell            | White                      | Iron U             | 12-50                      | Hardinsburg     |
| 2218    | St. Francisville E.     | J. E. Bauer      | Lawrence                   | All States Life    | 11-57                      | Benoist         |
| 1222    | St. James               | H. Rosenthal     | Fayette                    | Washburn           | 3-54                       | Cypress         |
| 1905    | Ste. Marie              | J. R. Randolph   | Jasper                     | Ste. Marie         | 10-48                      | McClosky        |
| 1100    | Sailor Springs C        | Ashland          | Effingham                  | Bible Grove        | 7-54                       | Rosi. & McCl.   |
| 318     | Sailor Springs C        | Ashland          | Clay                       | E. Flora           | 11-56                      | McClosky        |
| 319     | Sailor Springs C        | Breur & Currin*  | Clay                       |                    |                            | Ohara           |
| 309     | Sailor Springs C        | Cities Service   | Clay                       | Wyatt              | 9-53                       | Aux Vases       |
| 1102    | Sailor Springs C        | W. Duncan        | Effingham                  | Brink              | 12-57                      | Cypress         |
| 310     | Sailor Springs C        | Gulf             | Clay                       | R. Keck            | 9-57                       | Cypress         |
| 1103    | Sailor Springs C        | Kingwood         | Effingham                  | Nadler             | 6-55                       | Rosi. & McCl.   |
| 311     | Sailor Springs C        | Magnolia         | Clay                       | Sailor Springs U   | 3-55                       | Cypress         |
| 312     | Sailor Springs C        | W. C. McBride    | Clay                       | Goldsbey-Dickey*   | 9-55                       | Cypress         |
| 313     | Sailor Springs C        | W. C. McBride    | Clay                       | Duff-Keck*         | 7-53                       | Cypress         |
| 314     | Sailor Springs C        | Phillips         | Clay                       | Bothwell           | 8-56                       | Cypress         |
| 315     | Sailor Springs C        | Shulman          | Clay                       | Colclasure         | 7-57                       | Cypress         |
| 316     | Sailor Springs C        | Shulman          | Clay                       | Neff**             |                            | McClosky        |
| 2604    | Salem C                 | Texas            | Marion                     | Rosiclare Sand U   | 4-50                       | Rosiclare       |
| 2605    | Salem C                 | Texas            | Marion                     | Salem U            | 10-50                      | Benoist         |
| 2606    | Salem C                 | Texas            | Marion                     | Salem U            | 10-50                      | Devonian        |
| 2607    | Salem C                 | Texas            | Marion                     | Salem U            | 4-51                       | McClosky        |
| 2608    | Salem C                 | Texas            | Marion                     | Salem U            | 10-50                      | Renault & A. V. |
| 1010    | Samsville N.            | Ashland          | Edwards                    | W. Salem           | 9-54                       | Bethel          |
| 3410    | Seminary                | Pure*            | Richland                   | Seminary           | 2-54                       | McClosky        |
| 700     | Siggins                 | Bell Brothers    | Cumberland                 | Flood #1           | 9-50                       | U. Siggins      |
| 701     | Siggins                 | Leland Fikes*    | Cumberland                 | Vevay Park         | 1-50                       | Siggins         |
| 702     | Siggins                 | Forest           | Cumberland                 | Siggins            | 6-42                       | 1st Siggins     |



TABLE 13.—

| Map No. | Development as of 12-31-57 |       |                         |                              |                    |       | Injection water                                 |                            |                            |                            |
|---------|----------------------------|-------|-------------------------|------------------------------|--------------------|-------|---|----------------------------|----------------------------|----------------------------|
|         | No. of wells               |       | Injection pattern       | Spacing acres per input well | Productive acreage |       | Source<br>Sd=Sand<br>Gr=Gravel<br>Prod=Produced | Type<br>F=Fresh<br>B=Brine | Av. bbls. per day per well | Av. well-head pressure PSI |
|         | Inj.                       | Prod. |                         |                              | Sub-jected to inj. | Total |   |                            |                            |                            |
| 4238    | 6                          | 15    | Split Line              |                              | 725                | 725   | Shallow & Prod                                  | F & B                      | 28.0                       | 1,169                      |
| 3948    |                            |       |                         |                              |                    |       |   |                            |                            |                            |
| 4240    | 18                         | 12    | 5-Spot                  | 10                           | 160                | 185   | Shallow Gr                                      | F                          | 5.1                        | 1,400                      |
| 4241    | 7                          | 7     | 5-Spot                  | 20                           | 140                | 160   | Shallow Sd                                      | F                          | 3.2                        | 1,333                      |
| 4242    | 6                          | 8     | 5-Spot                  | 20                           | 40                 | 110   | Shallow Sd                                      | F                          | 6.9                        | 1,600                      |
| 4243    | 5                          | 7     | 5-Spot                  | 20                           | 70                 | 167   | Shallow Gr & Prod                               | F                          |                            | 1,600                      |
| 4244    | 12                         | 10    | 5-Spot                  | 10                           | 120                | 160   | Shallow Gr                                      | F                          | 2.5                        | 1,400                      |
| 3949    |                            |       |                         |                              |                    |       |   |                            |                            |                            |
| 4247    | 8                          | 7     |                         |                              | 390                | 477   | Well  | F                          | 4.2                        | 1,190                      |
| 4248    | 3                          | 5     |                         |                              | 390                | 447   | Well  | F                          | 2.4                        | 1,190                      |
| 2600    | 10                         | 20    | Perimeter               |                              | 230                | 290   | Tar Springs                                     | B                          | 12.9                       | 835                        |
| 000     | 4                          | 10    |                         |                              |                    | 160   | River & Prod                                    | F & B                      | 4.0                        |                            |
| 3408    | 3                          | 13    |                         |                              | 460                | 515   | Penn. Sd & Prod                                 | F & B                      | 39.1                       | 1,005                      |
| 307     | 10                         | 32    | Perimeter               | 10                           | 407                | 407   | Penn. Sd & Prod                                 | F & B                      | 1.3                        | 1,258                      |
| 3409    |                            |       |                         |                              |                    |       |   |                            |                            |                            |
| 308     | 1                          | 2     |                         |                              | 10                 | 60    | Cypress   | B                          |                            |                            |
| 2601    | 65                         | 65    | 5-Spot                  | 10                           | 527                | 527   | Tar Springs                                     | B                          | 4.5                        | 260                        |
| 2602    | 16                         | 11    | Perimeter               |                              | 445                | 445   | Tar Springs                                     | B                          | 10.1                       | 425                        |
| 2603    | 5                          | 5     | Peripheral              |                              | 61                 | 61    | Tar Springs                                     | B                          | 5.5                        | 538                        |
| 4249    | 2                          | 6     |                         |                              | 80                 | 80    | Penn. Sd  | B                          |                            |                            |
| 4250    | 4                          | 5     |                         |                              | 128                | 128   | City  | F                          | 5.5                        | 1,281                      |
| 4251    | 10                         | 17    | 5-Spot                  | 10                           | 130                | 130   | Prod  | B                          | 2.6                        | 870                        |
| 4252    | 5                          | 9     | 5-Spot                  | 20                           | 53                 | 130   | Shallow Sd & Prod                               | F & B                      |                            |                            |
| 4253    | 2                          | 4     | 5-Spot                  | 10                           | 25                 | 70    | Shallow Sd & Prod                               | F & B                      | 12.2                       | 1,216                      |
| 4254    | 1                          | 2     |                         |                              | 16                 | 40    | Prod  | B                          | 9.4                        | 1,213                      |
| 4255    | 5                          | 13    | Mod. 5-Spot             | 10                           | 100                | 180   | Penn. Sd  | B                          | 21.7                       | 1,143                      |
| 4256    | 1                          | 5     |                         |                              | 50                 | 135   | Prod  | B                          | 16.4                       | 310                        |
| 4257    | 1                          | 4     |                         |                              | 40                 | 135   | Prod  | B                          | 6.6                        | 1,484                      |
| 4258    | 7                          | 22    | Flank                   |                              | 556                | 577   | Penn. Sd  | B                          | 57.4                       | 78                         |
| 4259    | 7                          | 7     | 5-Spot                  | 20                           | 94                 | 209   | Penn. Sd  | B                          | 18.0                       | 720                        |
| 4262    |                            |       |                         |                              |                    |       |   |                            |                            |                            |
| 1413    | 11                         | 22    | Flank                   | 10                           | 336                | 336   | Prod  | B                          | 21.7                       |                            |
| 4260    | 37                         | 31    | 5-Spot                  | 20                           | 590                | 770   | Penn. Sd  | B                          | 9.2                        | 650                        |
| 4261    | 20                         | 24    | 5-Spot                  | 20                           | 390                | 430   | Tar Springs & Prod*                             | B                          | 6.0                        | 524                        |
| 2218    | 5                          | 5     |                         | 10                           | 160                | 160   | Prod  | B                          | 5.8                        | 753                        |
| 1222    | 3                          | 9     |                         |                              | 95                 | 95    | Prod  | B                          | 6.0                        | 200                        |
| 1905    | 1                          | 14    |                         |                              | 400                | 500   | Cypress   | B                          | 42.3                       | None                       |
| 1100    | 4                          | 9     | Irregular               |                              | 180                |       | Cyp. & T. S.                                    | B                          |                            |                            |
| 318     | 3                          | 9     |                         | 40                           | 160                | 160   | Prod  | B                          | 20.5                       | None                       |
| 319     |                            |       |                         |                              |                    |       |   |                            |                            |                            |
| 309     | 2                          | 2     |                         |                              | 10                 | 30    | Penn. Sd  | B                          | 11.7                       |                            |
| 1102    | 1                          | 3     |                         | 10                           | 40                 | 40    | Penn. Sd  | B                          | 128.0                      | 250                        |
| 310     | 1                          | 1     |                         |                              |                    |       |   |                            | 16.4                       |                            |
| 1103    | 2                          | 3     | Perimeter               | 20                           | 120                | 120   | Cypress   | B                          |                            |                            |
| 311     | 11                         | 23    | Irregular               |                              | 202                | 350   | Penn. Sd & Prod                                 | B                          |                            |                            |
| 312     | 1                          | 4     | 5-Spot                  | 10                           | 40                 | 40    | Prod  | B                          | 15.8                       | 188                        |
| 313     | 5                          | 8     | 5-Spot                  | 20                           | 140                | 140   | Penn. Sd  | B                          | 5.9                        | 746                        |
| 314     | 1                          | 1     |                         | 10                           | 10                 | 20    | Prod  | B                          | 9.4                        |                            |
| 315     | 1                          | 5     |                         | 20                           | 80                 | 80    | Prod  | B                          | 8.1                        | 479                        |
| 316     | 2                          | 1     |                         | 20                           | 80                 | 80    | Cypress   | B                          |                            |                            |
| 2604    | 3                          | 4     | Flank                   | 10                           | 100                | 100   | Penn. Sd  | B                          | 8.8                        | 782                        |
| 2605    | 199                        | 447   | Peripheral & 25% 5-Spot | 20                           | 7,975              | 7,975 | Gr & Prod                                       | F & B                      | 18.1                       | 491                        |
| 2606    | 26                         | 32    | Peripheral              |                              | 5,414              | 5,414 | Gr & Prod                                       | F & B                      | 30.3                       |                            |
| 2607    | 129                        | 289   | Peripheral              |                              | 7,712              | 7,712 | Gr & Prod                                       | F & B                      | 13.4                       | 527                        |
| 2608    | 75                         | 60    | Peripheral              |                              | 4,881              | 4,881 | Gr & Prod                                       | F & B                      |                            | 584                        |
| 1010    | 1                          | 1     |                         |                              | 20                 | 35    | Prod  | B                          | 32.3                       | 529                        |
| 3410    | 2                          | 4     |                         |                              | 173                | 173   | Cypress   | B                          |                            |                            |
| 700     | 9                          | 7     | 5-Spot                  | 4.4                          | 80                 | 80    | Surf. & Prod                                    | F & B                      | 0.6                        | 215                        |
| 701     |                            |       |                         |                              |                    |       |   |                            |                            |                            |
| 702     | 493                        | 407   | 5-Spot                  | 4.4                          | 1,800              |       | Gr & Prod*                                      | F & B                      | 0.6                        | 240                        |

(Continued)

| Reservoir statistics (average values) |                        |                   |                          |                 |                           | Remarks  | Map No. |
|---------------------------------------|------------------------|-------------------|--------------------------|-----------------|---------------------------|--|---------|
| Depth feet                            | Net pay thickness feet | Porosity per cent | Permeability millidarcys | Oil gravity API | Oil viscosity centipoises |  |         |
| 2,200                                 | 43.0                   | 19.2              | 475                      | 36.8            | 2.9 @ 86°F                | *Includes Indiana data. Previously subjected to gas injection.   | 4238    |
| 2,700                                 | 30.0                   | 16.0              | 50                       | 39.0            | 2.2 @ 92°F                | *No data available.  | 3948    |
| 2,800                                 | 24.0                   | 14.5              | 50                       | 39.0            |                           | *Cumulative for Tidewater operated wells. Previously subjected to gas injection.                               | 4240    |
| 1,800                                 | 16.0                   | 12.8              | 17                       | 32.0            |                           | Previously subjected to gas injection.   | 4241    |
| 3,000                                 | 20.0                   |                   |                          |                 |                           | Previously subjected to gas injection.   | 4242    |
| 2,800                                 | 15.0                   |                   |                          |                 |                           |  | 4243    |
| 1,740                                 | 15.0                   | 20.6              | 39                       | 37.0            |                           |  | 4244    |
| 2,445                                 | 10.0                   |                   |                          |                 |                           | *No 1957 data available.   | 3949    |
| 2,110                                 | 11.0                   |                   |                          |                 |                           | *Includes primary production since start of flood.   | 4247    |
|                                       |                        |                   |                          |                 |                           | *Includes primary production since start of flood.   | 4248    |
| 1,700                                 | 15.0                   | 20.0              | 78                       | 38.0            | 8.3 @ 69°F                |  | 2600    |
| 600                                   | 18.0                   |                   |                          |                 |                           | *Estimated figures.  | 000     |
| 3,100                                 | 5.3                    | 13.8              | 522                      | 36.0            | 2.6 @ 99°F                |  | 3408    |
| 2,600                                 | 14.2                   | 15.6              | 54                       | 37.8            | 6.4 @ 60°F                |  | 307     |
| 3,150                                 | 5.0                    | 20.0              |                          |                 |                           | *No 1957 data available.   | 3409    |
| 3,015                                 |                        |                   |                          |                 |                           |  | 308     |
| 1,410                                 | 27.0                   | 19.0              | 110                      | 39.0            |                           |  | 2601    |
| 1,550                                 | 9.0                    | 18.8              | 223                      | 40.0            | 4.1                       |  | 2602    |
| 1,280                                 | 10.0                   | 21.0              | 32                       | 39.0            | 5.5 @ 60°F                | *Includes primary production since start of flood.   | 2603    |
| 2,750                                 | 12.0                   |                   |                          |                 |                           | *Injection shut down June through Dec., 1956. †Includes primary production since start of flood.               | 4249    |
| 2,850                                 | 9.6                    | 18.6              | 64                       | 34.5            | 5.2 @ 95°F                | *Previously operated by S. C. Yingling. †Corrected figures. ‡Includes primary production since start of flood. | 4250    |
| 1,550                                 | 29.0                   | 17.6              | 86                       | 32.0            | 20.0                      | *Corrected figures.  | 4251    |
| 1,830                                 |                        |                   |                          | 32.2            | 11.2 @ 78°F               | *Includes primary production since start of flood.   | 4252    |
| 2,000                                 | 15.0                   | 19.0              | 100                      | 37.0            |                           |  | 4253    |
| 2,800                                 | 10.0                   | 15.0              | 46                       | 37.0            |                           |  | 4254    |
| 2,850                                 | 13.0                   | 15.5              | 50                       | 35.5            |                           | *Input well shut down between 8-16-54 and 9-13-56.   | 4255    |
| 2,000                                 | 10.0                   |                   |                          |                 |                           |  | 4256    |
| 2,300                                 | 7.0                    |                   |                          |                 |                           |  | 4257    |
| 2,175                                 | 13.0                   | 19.5              | 292                      | 30.0            | 9.2 @ 83°F                |  | 4258    |
| 2,530                                 | 11.6                   | 18.8              | 259                      | 38.5            |                           |  | 4259    |
| 2,620                                 | 20.0                   | 14.0              | 16                       |                 |                           | *No 1957 data available.   | 4262    |
| 1,695                                 | 14.0                   | 19.0              | 225                      | 29.2            | 8.0 @ 32°F                | *Includes primary production since start of flood. Previously subjected to gas injection.                      | 1413    |
| 2,628                                 | 15.5                   | 17.3              | 106                      | 38.6            |                           |  | 4260    |
| 2,500                                 | 25.0                   | 17.6              | 152                      | 38.5            |                           | *Due to mixed brine problems, wells recently converted to 100% source (Tar Springs).                           | 4261    |
| 1,740                                 | 27.0                   | 17.0              | 40                       | 36.5            | 10.0 @ 60°F               |  | 2218    |
| 1,595                                 | 20.0                   |                   |                          | 34.0            |                           | *Cumulatives to 12-31-56 were estimates. †Total oil production.  | 1222    |
| 2,860                                 | 7.0                    |                   |                          |                 |                           | *Dump flood, estimated injection. ‡Excluding 1-1-56 through 12-31-56. †Since 1-1-56.                           | 1905    |
| 2,850                                 |                        |                   |                          | 37.0            |                           | *Controlled dump flood. †Includes primary production since start of flood.                                     | 1100    |
| 2,950                                 | 6.0                    | 15.0              | 800                      |                 |                           | *Includes primary production since start of flood.   | 318     |
|                                       |                        |                   |                          |                 |                           | *No data available.  | 319     |
| 2,771                                 | 9.2                    | 17.0              | 50                       | 34.2            |                           |  | 309     |
| 2,530                                 | 7.0                    |                   |                          |                 |                           |  | 1102    |
| 2,856                                 | 15.0                   |                   |                          |                 |                           | *Includes primary production since 10-1-57.  | 310     |
|                                       |                        |                   |                          |                 |                           | *Dump flood, estimated injection. †Includes primary production since start of flood to 12-31-56.               | 1103    |
| 2,600                                 |                        |                   |                          |                 |                           |  | 311     |
| 2,580                                 | 15.0                   | 15.4              | 17                       | 38.0            |                           | *Pilot flood. †Since 3-1-56.   | 312     |
| 2,600                                 | 12.0                   | 19.0              | 60                       | 38.0            |                           | ‡Since 1-1-55. *Formerly duff pilot flood.   | 313     |
| 2,650                                 | 10.0                   | 19.0              | 20                       | 36.0            |                           |  | 314     |
| 2,620                                 | 15.0                   |                   |                          | 38.0            |                           |  | 315     |
| 3,000                                 | 5.0                    |                   |                          | 36.0            |                           | *Since 1-1-57. ‡Dump flood.  | 316     |
| 2,093                                 | 14.0                   | 11.5              | 43                       | 36.5            |                           |  | 2604    |
| 1,770                                 | 28.0                   | 17.9              | 150                      | 37.0            | 3.9 @ 93°F                | *Since 1-1-52.   | 2605    |
| 3,400                                 | 19.0                   | 16.8              | 300                      | 36.5            |                           | *Since 1-1-52.   | 2606    |
| 1,950                                 | 20.0                   | 15.8              | 700                      | 37.0            |                           | *Since 1-1-52.   | 2607    |
| 1,825                                 | R- 7.0<br>A.V.-26.0    | 16.4              | R- 18<br>A.V.-28         | 37.0            | 4.6 @ 93°F                | *Since 1-1-52.   | 2608    |
| 2,930                                 | 5.0                    |                   |                          |                 |                           |  | 1010    |
| 3,000                                 | 8.0                    |                   |                          | 36.0            |                           | *Includes primary production since start of flood to 12-31-56.   | 3410    |
| 320                                   | 16.0                   | 18.9              | 73                       | 34.0            | 12.0 @ 63°F               | *Sold to R. Johnson. †As of 4-1-57. ‡Estimated.  | 700     |
| 600                                   | 16.0                   | 20.3              | 349                      | 30.1            |                           | *1954-57 injection in joint-operated wells not included.   | 701     |
| 400                                   | 32.0                   | 17.5              | 56                       | 36.6            | 8.0 @ 60°F                | Previously subjected to gas injection.   | 702     |
|                                       |                        |                   |                          |                 |                           | *No 1957 data available.   | 701     |
|                                       |                        |                   |                          |                 |                           | *Separate plants for fresh water and for brine. Previously subjected to gas injection.                         | 702     |





TABLE 14.—ILLINOIS WATERFLOOD

| Map No. |                         |                        |           |                      |                    | General        |
|---------|-------------------------|------------------------|-----------|----------------------|--------------------|----------------|
|         | Field<br>C=Consolidated | Operator               | County    | Date first injection | Project<br>U=Unit  | Date abandoned |
| 1014    | Albion C                | Continental            | Edwards   | 5-43                 | Stafford           | 12-56          |
| 1015    | Albion C                | First Nat. Pet. Trust  | Edwards   | 4-52                 | Brown              | 12-55          |
| 1012    | Albion C                | Superior               | Edwards   | 7-46                 | S. Albion U #2     | *              |
| 3944    | Allendale               | Ind. Farm Bur.         | Wabash    | 11-53                | Woods              | 6-57           |
| 4129    | Barnhill C              | Wayne Development      | Wayne     | 12-50                | Walter             | 1-55           |
| 3942    | Berryville C            | Phillips               | Wabash    | 9-52                 | Tarply             | 2-53           |
| 3943    | Berryville C            | Phillips               | Wabash    | 2-52                 | Townsend           | 7-53           |
| 217     | Casey                   | Calvan American        | Clark     | 8-53                 | Shawver            | 7-54           |
| 4267    | Centerville E           | Lesh                   | White     | 6-54                 | Centerville E      | 12-55          |
| 4246    | Centerville E           | Sun                    | White     | 10-50                | E. Centerville     | 8-57           |
| 408     | Centralia               | Sohio                  | Clinton   | 11-51                | Copple Town        | *              |
| 4130    | Clay City C             | Gulf                   | Wayne     | 8-55                 | Winona             | 10-56          |
| 4228    | Concord                 | Great Lakes Carbon     | White     | 6-53                 | McClosky           | 12-56          |
| 4229    | Concord                 | Phillips               | White     | 8-53                 | Dallas             | 1-57           |
| 3945    | Friendsville N.         | Magnolia               | Wabash    | 7-47                 | J. L. Litherland   | 9-57           |
| 4128    | Goldengate C            | Cities Service         | Wayne     | 10-53                | Goldengate         | 8-57           |
| 2200    | Lawrence                | Calvan American        | Lawrence  | 12-53                | Piper              | 9-56           |
| 2229    | Lawrence                | Calvan American        | Lawrence  | 3-53                 | Waller             | 11-55          |
| 2230    | Lawrence                | Ree                    | Lawrence  | 10-52                | Snyder             | 55             |
| 662     | Main C                  | Petroleum Products Co. | Crawford  | 9-51                 |                    | 12-56          |
| 663     | Main C                  | Ree                    | Crawford  | 11-53                | Meserve            | 5-55           |
| 661     | Main C                  | Skiles                 | Crawford  | 7-51                 | Correil-Curley     | 9-55           |
| 664     | Main C                  | Skiles                 | Crawford  | 12-51                | Walter-Comm.       | 12-52          |
| 665     | Main C                  | Skiles                 | Crawford  | 11-52                | Weger              | 7-56           |
| 2007    | Markham City            | Tidewater              | Jefferson | 8-55                 | Newton Investment  | 57             |
| 218     | Martinsville            | J. B. Buchman          | Clark     | 10-52                |                    | 54             |
| 219     | Martinsville            | Magnolia               | Clark     | 1-51                 | Carper             | 2-55           |
| 220     | Martinsville            | Magnolia               | Clark     | 8-50                 | Casey              | 2-53           |
| 4239    | Maunie South            | Magnolia               | White     | 11-55                | Maunie Coop.       |                |
| 4230    | Maunie South            | Magnolia               | White     | 8-47                 | Tar Spr. U         | 12-57          |
| 4268    | Maunie South            | Magnolia               | White     | 11-49                | Tar Spr. U #2      | 55             |
| 3946    | Mt. Carmel              | First Nat. Pet. Trust  | Wabash    | 2-50                 | Shaw Courter       | 12-56          |
| 3941    | Mt. Carmel              | First Nat. Pet. Trust  | Wabash    | 4-53                 | Shaw Courter       | 12-56          |
| 4222    | New Harmony C           | Skiles                 | White     | 5-55                 | Smith-Davenport    | 10-57          |
| 4269    | New Harmony C           | Sun                    | White     | 3-48                 | Ford "A"           | 7-52           |
| 4223    | New Harmony C           | Sun                    | White     | 8-47                 | Greathouse         | 1-57           |
| 3415    | Parkersburg C           | Calvert                | Richland  | 1-55                 | Parkersburg        | 56             |
| 4245    | Phillipstown C          | C. E. Brehm            | White     | 6-52                 | Phillipstown U "A" | 5-57           |
| 4232    | Phillipstown C          | Skiles                 | White     | 11-55                | L. O. Cleveland    | 12-56          |
| 4270    | Phillipstown C          | Sun                    | White     | 1-53                 | Phillipstown       | 3-54           |
| 4271    | Storms C                | Mabee                  | White     | 7-51                 |                    | 6-53           |
| 222     | Westfield               | Forest                 | Clark     | 6-50                 | Parker             | 12-56          |
| 221     | Westfield               | Ree                    | Clark     | 8-51                 | Hawkins            | 54             |
| 1907    | Willow Hill E.          | M. M. Spickler         | Jasper    | 6-52                 |                    | 12-56          |

PROJECTS REPORTED ABANDONED

| Information          |            |             | Production and injection statistics<br>(thousand bbls.) |  |                                 | Map<br>No. |
|----------------------|------------|-------------|---|--|---------------------------------|------------|
| Formation            | Location   |             | Cumulative<br>water<br>injection                        | Cumulative<br>secondary<br>oil<br>produced | Cumulative<br>water<br>produced |            |
|                      | Sec.       | T.-R.       |   |  |                                 |            |
| McClosky             | 13         | 2S-10E      | 625   | 43.1*                                      | 637                             | 1014       |
| Aux Vases            | 6          | 2S-11E      | *   |  |                                 | 1015       |
| Bridgeport           | 1, 11, 12  | 3S-10E      | *   | *  | *                               | 1012       |
| Biehl                | 20         | 1N-12W      | 633   | 44.8‡                                      | 559*                            | 3944       |
| McClosky             | 26         | 2S- 8E      | 144   |  | 119                             | 4129       |
| McClosky             | 2          | 1N-14W      | 35  | None                                       | 103                             | 3942       |
| McClosky             | 35         | 2N-14W      | 50  | None                                       | 86                              | 3943       |
| Casey                | 23, 24     | 10N-14W     | 49  | 1.8  |                                 | 217        |
| Rosiclare            | 12         | 4S- 9E      | *   | 4.4  | 4‡                              | 4267       |
| Tar Springs          | 7          | 4S-10E      | 269   | 39.2                                       | 132                             | 4246       |
| Trenton              | 35         | 2N- 1W      | 236   | 34.0‡                                      | 21                              | 408        |
| McClosky             | 12         | 1S- 8E      | 25  | None                                       | 0.3                             | 4130       |
| Rosiclare & McClosky | 28         | 6S-10E      | 234*  | 5.1*                                       | 44                              | 4228       |
| Rosiclare & McClosky | 28         | 6S-10E      | 247   | 3.0  | 42                              | 4229       |
| Biehl                | 1, 12      | 1N-13W      | 623   | 142.1*                                     | 282                             | 3945       |
| McClosky             | 28, 32, 33 | 2S- 9E      | 926   | 7.0*                                       | 281                             | 4128       |
| Cypress              | 2, 11      | 4N-13W      | 146*  | 5.8‡                                       |                                 | 2200       |
| Cypress              | 5, 6       | 2N-11W      | 828   | 12.3                                       |                                 | 2229       |
| Cypress              | 30         | 3N-11W      | 16*   | 0.6*                                       | 69*                             | 2230       |
| Robinson             | 29, 32     | 8N-12W      | 445   |  |                                 | 662        |
| Robinson             | 11         | 6N-13W      | 251   | 1.2  | 39                              | 663        |
| Robinson #4          | 10         | 7N-12W      | 1,207   | 29.8                                       | 227                             | 661        |
| Robinson #1 & #3     | 1          | 6N-13W      | 26  | None                                       | 29                              | 664        |
|                      | 36         | 7N-13W      |   |  |                                 |            |
| Robinson             | 18, 19     | 5N-11W      | 777   | 8.5  | 109                             | 665        |
|                      | 13, 24     | 5N-12W      |   |  |                                 |            |
| McClosky             | 1          | 3S- 4E      | *   | .8‡  |                                 | 2007       |
| Carper               | 31         | 10N-13W     | 283*  | None                                       | 5*                              | 218        |
| Carper               | 30         | 10N-13W     | 1,111   | 10.4                                       | 10                              | 219        |
| Casey                | 19         | 10N-13W     | 872   | 2.3  | 34                              | 220        |
| Tar Springs          | 24         | 6S-10E      | 180   | 11.2                                       | 141                             | 4239       |
| Tar Springs          | 19, 24, 25 | 6S-10 & 11E | 4,748‡  | 792.4*                                     | 2,049                           | 4230       |
| Tar Springs          | 24         | 6S-10E      | 639   | 60.3                                       | 209                             | 4268       |
|                      | 19         | 6S-11E      |   |  |                                 |            |
| Biehl                | 7          | 1S-12W      | 364   | 68.6                                       | 148*                            | 3946       |
| Cypress              | 7          | 1S-12W      | 259   | 28.4                                       | 10*                             | 3941       |
| Cypress              | 15         | 4S-14W      | 147   | 3.8  | 2                               | 4222       |
| McClosky             | 18         | 5S-14W      | 58  | 13.1                                       | 1                               | 4269       |
| McClosky             | 33         | 4S-14W      | 1,088   | 128.7                                      | 227                             | 4223       |
|                      | 4          | 5S-14W      |   |  |                                 |            |
| McClosky             | 16, 21     | 2N-14W      | 107*  | None                                       | 43*                             | 3415       |
| Penn.                | 30         | 4S-11E      | 311   | 68.3*                                      |                                 | 4245       |
|                      | 19, 30     | 4S-14W      |   |  |                                 |            |
| Tar Springs          | 36         | 4S-10E      | 48  | 0.1  | None                            | 4232       |
| Tar Springs          | 6          | 5S-11E      | 58  | None                                       | 251                             | 4270       |
| Waltersburg          | 22         | 6S- 9E      | 90  | None                                       |                                 | 4271       |
| "Gas Sand"           | 30         | 11N-14W     | 663   | 34.4                                       |                                 | 222        |
| "Gas Sand"           | 20, 21     | 11N-14W     | 265*  | 2.0*                                       | 44*                             | 221        |
| McClosky             | 36         | 7N-10E      | *   | 2.1‡                                       |                                 | 1907       |



TABLE 14.—

| Map No. | Maximum development during operation |       |                     |         |                    | Injection water |   |                            |
|---------|--------------------------------------|-------|---------------------|---------|--------------------|-----------------|---|----------------------------|
|         | No. wells                            |       | Injection pattern   | Spacing | Productive acreage |                 | Source<br>Sd=Sand<br>Gr=Gravel<br>Prod=Produced | Type<br>F=Fresh<br>B=Brine |
|         | Inj.                                 | Prod. |                     |         | Subj. injection    | Total           |   |                            |
| 1014    | 1                                    | 1     |                     |         | 80                 | 80              | Prod  | B                          |
| 1015    | 1                                    | 1     | Spot                | 10      | 30                 | 20              | Hardinsburg                                     | B                          |
| 1012    | *                                    | *     |                     |         | 203                |                 | Prod  | B                          |
| 3944    | 5                                    | 7     |                     | 10      | 147                | 147             | Prod  | B                          |
| 4129    | 1                                    | 2     |                     | 10      | 40                 | 40              | Cypress   | B                          |
| 3942    | 1                                    | 2     |                     |         | 14                 | 30              | Prod & Tar Springs                              | B                          |
| 3943    | 1                                    | 2     |                     |         | 27                 | 30              | Prod & Tar Springs                              | B                          |
| 217     | 9                                    | 4     | 5-Spot              | 4.4     | 13                 | 215             | Shallow Sd                                      | F                          |
| 4267    | 1                                    | 1     |                     |         | 20                 | 20              | Tar Springs                                     | B                          |
| 4246    | 1                                    | 5     | Flank               |         | 80                 |                 | Tar Springs & Prod                              | B                          |
| 408     | 2                                    | 12    |                     | 20      | 160                | 200             | Devonian  | B                          |
| 4130    | 1                                    | 1     |                     | 12.5    | 13                 | 50              | Tar Springs                                     | B                          |
| 4228    | 3                                    | 8     | Modified Peripheral |         | 140                | 150             | Gr Bed  | F                          |
| 4229    | 1                                    | 3     |                     |         | 40                 | 60              | Shallow Sd & Prod                               | F & B                      |
| 3945    | 2                                    | 3     | 5-Spot              | 10      | 13                 | 40              | Shallow Sd                                      | F                          |
| 4128    | 2                                    | 8     | Irregular           |         | 159                | 210             | Gr Bed  | F                          |
| 2200    | 4                                    | 8     | 5-Spot              | 10      | 13                 | 143.6           | Shallow Sd                                      | B                          |
| 2229    | 8                                    | 8     | 5-Spot              | 10      | 35                 | 625             | Gr Bed  | B                          |
| 2230    | 1                                    | 2     |                     |         | 10                 | 230             | Tar Springs                                     | B                          |
| 662     | 4                                    | 2     | 5-Spot              | 10      | 10                 | 700             | Sh. Sd & Prod                                   | F                          |
| 663     | 4                                    | 4     | 5-Spot              | 10      |                    | 525             | Penn. Sd  | B                          |
| 661     | 18                                   | 17    | 5-Spot              | 10      | 180                |                 | Creek & Penn. Sd                                | F & B                      |
| 664     | 5                                    | 6     | 5-Spot              | 10      | 40                 |                 | U. Penn. Sd                                     | B                          |
| 665     | 9                                    | 11    | 5-Spot              | 10      | 90                 | 110             | Creek & Prod                                    | F & B                      |
| 2007    | 1                                    | 1     | Dump                |         | 40                 | 40              | Cypress   | B                          |
| 218     | 2                                    | 6     | 5-Spot              | 20      | 40                 | 40              | Shallow Sd                                      | F                          |
| 219     | 4                                    | 1     | 5-Spot              | 10      | 10                 | 50              | Gr Bed  | F                          |
| 220     | 8                                    | 3     | 5-Spot              | 10      | 23                 | 110             | Gr Bed  | F                          |
| 4239    | 1                                    | 3     | Irreg.              |         | 18                 | 80              | Gr & Prod                                       | F & B                      |
| 4230    | 2                                    | 4     | 5-Spot              | 20      | 138                | 230             | Gr & Prod                                       | F & B                      |
| 4268    | 3                                    | 2     | 5-Spot              | 20      | 50                 | 50              | Gr Bed  | F & B                      |
| 3946    | 1‡                                   | 2     | Spot                | 10      | 30                 | 30              | Water Well & Prod                               | F & B                      |
| 3941    | 1                                    | 4     | Spot                | 10      | 50                 | 50              | Water Well                                      | F                          |
| 4222    | 1                                    | 2     | Irreg.              |         | 30                 | 30              | Tar Springs                                     | B                          |
| 4269    | 1                                    | 1     | Spot                |         | 40                 | 40              | Gr Bed  | F                          |
| 4223    | 1                                    | 1     |                     |         | 50                 |                 | Gr Bed  | F                          |
| 3415    | 2                                    | 7     |                     | 20      | 160                | 160             | McClosky  | B                          |
| 4245    | 1                                    | 5     | Irreg.              |         | 90                 | 90              | Penn. Sd  | B                          |
| 4232    | 1                                    | 2     | Irreg.              |         | 30                 | 30              |   | B                          |
| 4270    | 1*                                   | 9     |                     |         | 10                 |                 | Prod  | B                          |
| 4271    | 1                                    | 2     |                     |         | 40                 | 40              | Penn. Sd  | B                          |
| 222     | 9                                    | 12    | 5-Spot              | 2.5     | 20                 |                 | Gr Bed  | F                          |
| 221     | 15                                   | 8     | 5-Spot              | 4.4     | 40                 | 360             | Devonian & Prod                                 | F & B                      |
| 1907    | 1                                    | 1     |                     |         | 20                 | 20              | Prod  | B                          |

(Continued)

| Reservoir statistics (average values) |                        |                   |                          |                 |                              | Remarks  | Map No. |
|---------------------------------------|------------------------|-------------------|--------------------------|-----------------|------------------------------|--|---------|
| Depth feet                            | Net pay thickness feet | Porosity per cent | Permeability millidarcys | Oil gravity API | Oil viscosity centipoises    |  |         |
| 3,222                                 | 4.0                    | 16.3              | 898                      | 39.0            |                              | *Includes primary production to 12-31-56.  | 1014    |
| 3,005                                 | 21.0                   |                   |                          |                 |                              | *Dump flood.   | 1015    |
| 1,900                                 | 20.0                   | 19.7              | 304                      | 32.5            | 6.3 @ 95°F                   | *Abandoned and converted to disposal project in 1952, but reinstated as an active flood during 1956. See table 15. | 1012    |
| 1,520                                 | 15.0                   |                   |                          | 28.4            | 8.9 @ 32°F                   | *1-1-55 to 7-1-57. †Includes primary production to 12-31-56.   | 3944    |
| 3,450                                 | 18.0                   |                   |                          |                 |                              |  | 4129    |
| 2,890                                 | 10.0                   |                   |                          |                 |                              |  | 3942    |
| 2,890                                 | 10.0                   |                   |                          |                 |                              |  | 3943    |
| 450                                   | 21.5                   | 22.4              | 108                      | 31.8            | 13.6 @ 65°F                  |  | 217     |
| 3,366                                 | 7.0                    |                   |                          | 43.0            |                              | *Dump flood. †From 1-1-55 to 12-4-55.  | 4267    |
| 2,530                                 | 6.0                    |                   |                          | 36.6            |                              |  | 4246    |
| 3,950                                 | 22.0                   | 10.0              |                          | 39.8            | 2.7                          | *Pilot flood, reported as abandoned in March, 1953. †Includes primary production from 11-51 to 3-53.               | 408     |
| 3,115                                 | 8.0                    | 12.0              |                          | 40.1            |                              |  | 4130    |
| 2,980                                 | 22.0                   |                   |                          | 37.5            |                              | *As of 1-1-55.   | 4228    |
| 2,960                                 | 30.0                   | 15.0              | 50                       | 36.0            |                              |  | 4229    |
| 1,620                                 |                        |                   |                          | 35.6            |                              | *Includes primary production to 12-31-56.  | 3945    |
| 3,308                                 | 8.0                    |                   |                          | 34.0            |                              | *Corrected figure.   | 4128    |
| 1,520                                 | 25.0                   | 20.8              | 33                       | 38.6            | 3.5 @ 86°F                   | *As of 5-1-56. †As of 8-15-56.   | 2200    |
| 1,535                                 | 50.0                   | 18.5              | 70                       | 39.5            | 5.0 @ 85°F                   |  | 2229    |
| 1,580                                 | 25.0                   | 21.2              | 125                      | 38.6            | 4.1 @ 85°F                   |  | 2230    |
| 1,000                                 | 15.0                   | 20.0              | 75                       | 37.5            | 7.3 @ 76°F                   | *As of 1-1-55.   | 662     |
| 950                                   | 22.7                   | 21.9              | 89                       |                 | 10.0 @ 79°F                  |  | 663     |
| 1,035                                 | 20.0                   | 22.2              | 100                      | 33.0            | 13.5                         |  | 661     |
| 950                                   | 10.0                   | 20.1              | 93                       | 36.0            | 12.5 @ Reservoir Temperature |  | 664     |
| 1,010                                 | 15.0                   |                   |                          |                 |                              |  |         |
| 900                                   | 20.0                   | 17.0              | 37                       |                 |                              |  | 665     |
| 3,080                                 | 6.0                    |                   |                          |                 |                              | *Dump flood. †Total production since 1-1-56.   | 2007    |
| 1,346                                 | 40.0                   | 16.0              | 11                       | 30.0            |                              | *As of 1-1-54.   | 218     |
| 1,334                                 |                        |                   |                          |                 |                              |  | 219     |
| 464                                   |                        |                   |                          |                 |                              |  | 220     |
| 2,275                                 |                        |                   |                          |                 |                              |  | 4239    |
| 2,270                                 |                        |                   |                          | 37.3            | 4.6 @ 89°F                   | *Includes primary production to 12-31-56. †Corrected figure.   | 4230    |
| 2,275                                 |                        |                   |                          |                 |                              |  | 4268    |
| 1,375                                 | 16.0                   |                   |                          | 40.2            | 4.7 @ 70°F                   | *As of 1-1-56. †During 1956, injection well used as a straight disposal well.                                      | 3946    |
| 2,050                                 | 12.0                   |                   |                          |                 |                              | *As of 1-1-56.   | 3941    |
| 2,630                                 | 10.0                   | 17.7              | 145                      |                 |                              |  | 4222    |
| 2,900                                 | 7.0                    |                   |                          | 38.0            |                              |  | 4269    |
| 2,900                                 | 5.0                    |                   |                          | 36.9            |                              |  | 4223    |
| 3,062                                 | 10.0                   |                   |                          |                 |                              | *As of 1-1-56.   | 3415    |
| 1,912                                 | 23.0                   | 13.0              | 36                       | 38.0            | 4.5 @ 84°F                   | *Includes primary production to 12-31-56.  | 4245    |
| 2,300                                 | 12.0                   |                   |                          |                 |                              |  | 4232    |
| 2,248                                 | 10.0                   |                   |                          | 34.5            |                              | *Abandoned after unsuccessful input well fracture treatment.   | 4270    |
| 2,241                                 | 15.0                   |                   |                          |                 |                              |  | 4271    |
| 270                                   | 25.0                   | 17.9              | 153                      | 28.1            | 54.0 @ 60°F                  | Previously subjected to gas injection.   | 222     |
| 290                                   | 30.0                   | 22.0              | 120                      | 30.0            | 28.0 @ 62°F                  | *As of 1-1-54.   | 221     |
| 2,615                                 | 10.0                   |                   |                          |                 |                              | *Dump flood, not in operation during 1956. †As of 1-1-55.  | 1907    |

TABLE 15.—ILLINOIS PRESSURE MAINTENANCE PROJECTS

| Map No. |                      |                 |           |                          |                      | General     |
|---------|----------------------|-----------------|-----------|--------------------------|----------------------|-------------|
|         | Field C=Consolidated | Operator        | County    | Project U=Unit           | Date first injection | Formation   |
| 1011    | Albion C             | Calvert         | Edwards   | South Albion Lower Biehl | 4-51                 | Biehl       |
| 1012    | Albion C             | Superior        | Edwards   | S. Albion U #2*          | 7-46                 | Bridgeport  |
| 001     | Beaver Creek         | Conrey & Conrey | Bond      | Wrone Lse.               | 7-53                 | Benoist     |
| 405     | Beaver Creek S.      | Conrey & Conrey | Clinton   | Kneier-Ragland           | 4-56                 | Benoist     |
| 2005    | Boyd                 | Superior        | Jefferson | Boyd Repressure          | 6-45                 | Benoist     |
| 1013    | Bone Gap C           | Gallagher       | Edwards   |                          | 6-52                 | Waltersburg |
| 406     | Germantown           | Nap Co.         | Clinton   | Germantown               | 9-56                 | Devonian    |
| 407     | Carlyle N.           | Conrey & Conrey | Clinton   | Krietemeyer              |                      | Benoist     |
| 4264    | Enfield S.           | Ryan Oil        | White     | S. Enfield U #1          | 1-55                 | Aux Vases   |
| 1223    | Louden               | Carter          | Fayette   | Louden Devonian          | 9-43                 | Devonian    |
| 4265    | Maunie S.            | Nap Co.         | White     | S. Clear Pond            | 6-57                 | Tar Springs |
| 1414    | Omaha                | Carter          | Gallatin  | Omaha                    | 10-44                | Palestine   |
| 4266    | Phillipstown C       | Nap Co.         | White     | Stokes "B" #3            | 6-56                 | Benoist     |
| 2006    | Salem C              | Carter          | Jefferson | Dix (R & P. M.)          | 1-48                 | Bethel      |

TABLE 15.—

| Map No. | Development as of 12-31-57 |       |                   |                              |                    |       | Injection water                                 |                            |                                    |                            |
|---------|----------------------------|-------|-------------------|------------------------------|--------------------|-------|---|----------------------------|------------------------------------|----------------------------|
|         | No. of wells               |       | Injection pattern | Spacing acres per input well | Productive acreage |       | Source<br>Sd=Sand<br>Gr=Gravel<br>Prod=Produced | Type<br>F=Fresh<br>B=Brine | Av. bbls. per day per well per ft. | Av. well-head pressure PSI |
|         | Inj.                       | Prod. |                   |                              | Sub-jected to inj. | Total |   |                            |                                    |                            |
| 1011    | 2                          | 7     | Peripheral        |                              | 60                 | 119   | Prod  | B                          | 33.1                               |                            |
| 1012    | 2                          | 13    | Mod. Flank        |                              | 260                | 260   | Gr & Prod                                       | F & B                      | 12.3                               | 25                         |
| 001     | 1                          | 4     |                   | 10                           | 40                 | 50    | Prod-Benoist                                    | B                          |                                    |                            |
| 405     | 1                          | 5     |                   | 10                           | 50                 | 50    | Prod-Benoist                                    | B                          | 7.6                                |                            |
| 2005    | 4                          | 85    | Peripheral        |                              | 1,564              | 1,564 | Surface & Prod                                  | F & B                      |                                    |                            |
| 1013    | 1                          | 9     |                   |                              | 40                 | 120   | Prod  | B                          | 11.4                               | 450                        |
| 406     | 1                          | 12    |                   | 20                           | 20                 | 300   | Prod  | B                          |                                    | 350                        |
| 407     | 1                          | 2     |                   |                              | 20                 |       | Benoist   | B                          |                                    |                            |
| 4264    | 3                          | 5     | None              |                              | 150                | 300   | Fresh Water                                     | F                          | 20.8                               | 1,090                      |
| 1223    | 7                          | 57    | Peripheral        |                              | 2,600              | 2,600 | Prod  | B                          |                                    | 230                        |
| 4265    | 1                          | 5     | Line              | 10                           | 10                 | 100   | Prod  | B                          |                                    |                            |
| 1414    | 1                          | 16    | Flank             |                              | 280                | 280   | Prod  | B                          | 24.9                               | 250                        |
| 4266    | 1                          | 8     |                   |                              | 80                 | 80    | Prod  | B                          | 46.3                               | 1,380                      |
| 2006    | 4                          | 63    | Peripheral        |                              | 1,200              | 1,200 | Penn. & T. S.                                   | B                          | 51.3                               | 340                        |



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