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STATE OF ILLINOIS

DEPARTMENT OF REGISTRATION AND EDUCATION

PETROLEUM INDUSTRY IN ILLINOIS, 1961

Part I. Oil and Gas Developments

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Part II. Waterflood Operations

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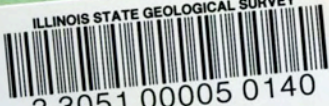
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PETROLEUM INDUSTRY IN ILLINOIS, 1961

ALFRED H. BELL, MARGARET O. OROS, JACOB VAN DEN BERG,
CARL W. SHERMAN, AND RICHARD F. MAST

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PETROLEUM INDUSTRY IN ILLINOIS, 1961

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ABSTRACT

In 1961 Illinois produced 77,478,000 barrels of oil, a slight increase over the 1960 total, and remained eighth in crude oil production in the United States. About 66.7 percent of this production (51,682,000 barrels), compared with 60.2 percent in 1960, resulted from secondary recovery by waterflooding. Illinois crude sold for \$3.00 a barrel at the wells throughout 1961. Total value of Illinois oil produced in 1961, including natural gasoline and liquefied petroleum gas, was \$233,534,000.

A total of 3,090 wells was reported completed in 1961. Of these, 2,152 were drilled for oil and gas, including 1,103 producing wells, of which 75 are former dry holes reworked or deepened; 32 structure tests for oil and gas; and 1,017 dry holes. New service wells and conversions to service wells accounted for 709 of the completions, and wells drilled or converted in connection with underground gas storage accounted for 229.

Wildcat tests for oil and gas were drilled in 55 counties in 1961. Three gas and 12 oil pools, 45 extensions to pools, and 26 new pay zones in pools were discovered. Oil was discovered in the Dutch Creek sand in Goldengate Consolidated pool in Wayne County at about 5,350 feet, the deepest production in Illinois.

Natural gas from other states is now being stored in eight underground storage areas in Illinois and others are being planned. Liquefied petroleum gases are being stored in seven mined underground caverns in Illinois.

This report includes data on 10,039 holes drilled, most of them from 1946 through 1960, that had not been included in previous annual reports on the oil industry. Most of the wells were drilled in the development of secondary recovery operations. Included are 2,806 new service wells such as water input and salt water disposal wells, 4,223 holes converted to service wells from their previous status, 2,090 new producing wells, and 194 dry holes drilled for oil and gas. The rest were workovers, structure tests, and wells drilled for underground natural gas storage.

The end of 1961 marked the twenty-fifth anniversary of the drilling of the Pure Oil Company, #1 Weiler well in Clay County, which initiated the extensive development of the Illinois Basin and the rejuvenation of the oil industry in Illinois.

During 1961 a total of 658 controlled secondary recovery projects were reported in Illinois, an increase of 18 percent over the number reported the year before. Oil produced from the projects amounted to approximately 50,412,000 barrels, and an additional 1,270,000 barrels of oil was estimated to have been produced by dump flooding. At the end of 1961 the total cumulative waterflood oil produced in Illinois was 334,716,000 barrels.

Pressure maintenance projects added 1,037,000 barrels of oil to the state's production.

PART I. OIL AND GAS DEVELOPMENTS

Alfred H. Bell, Margaret O. Oros, and Jacob Van Den Berg

INTRODUCTION

In 1961 the oil and gas industry of Illinois continued to make a major contribution to the economy of the state with a total production value of \$233,534,000. Oil production was up slightly from 1960 and the price of crude oil remained steady at \$3.00 per barrel.

Part I of this report discusses developments during 1961 and some drilling activities of prior years, mostly in waterflood areas, that have not been included in previous annual reports. It shows the geologic column of Illinois and discusses the oil producing strata of the state. Statistics on pool development and exploratory drilling, crude oil reserves, productive acreage, core drilling activity, gas production, underground storage of natural gas, and underground storage facilities for liquefied petroleum gas are included.

Many oil companies and individuals contributed basic data for this report. Several members of the Illinois State Geological Survey staff assisted in its preparation, including Wayne F. Meents, David H. Swann, Lester L. Whiting, David Duncan, Richard H. Howard, and Elton E. Hill.

Part II, prepared by the Petroleum Engineering Section of the Survey, deals with secondary recovery operations. Tables and maps for Part II are based on data furnished by the oil operators through the Illinois Secondary Recovery and Pressure Maintenance Committee of the Interstate Oil Compact Commission.

QUARTER CENTURY OF OIL DEVELOPMENT IN THE ILLINOIS BASIN

The year 1961 is the twenty-fifth anniversary of the drilling of the well that started the development of the Illinois Basin. The Pure Oil Company, #1 Weiler, located in sec. 33, T. 3 N., R. 6 E., Clay County, just south of Clay City, was started in November 1936, and oil saturation

was found on February 27, 1937, with production from Weiler sand. A second well, on the Bradley farm south of Cisne also started in November 1936, was completed soon after the Weiler well and produced from the same zone, which is now generally referred to as the Cypress sand. Both wells were drilled with cable tools.

The Pure Oil Company, #1 Bunny Travis, also located in sec. 33, T. 3 N., R. 6 E., was drilled with rotary tools. It flowed 2,565 barrels of oil in its first 24 hours of production on May 17, 1937, and was the first McClosky lime producer in the Illinois Basin. The boom was on.

As the result of subsequent discoveries and consolidations of pools that spread out and grew together, the Clay City Consolidated pool now stretches northeast-southwest through four counties — Clay, Wayne, Richland, and Jasper — and has produced over 225 million barrels of oil. The Illinois Basin also has many other oil pools and has been the principal area of drilling and development in Illinois since the Bunny Travis well was completed.

Early in 1937 representatives of several oil companies met at Mattoon and established a cooperative oil reporting organization, which evolved into the Tri-State Oil Scouts Association. The scouts met weekly, each reporting current progress of all wells drilled within his assigned area. The well completions listed each month in the Monthly Oil and Gas Drilling Report, published by the Illinois State Geological Survey, were based on data recorded by the Survey scout who attended these meetings. The data also were used for compilation of the Survey's annual reports on the petroleum industry in Illinois.

Participation in the scout check varied with fluctuations in the activity in the Illinois Basin until changing conditions in the industry made the cooperative organization for collecting information on oil well completions seem less attractive than commercial reporting of such data. The last check meeting of the Tri-State Oil Scouts Association

was held October 11, 1961, and the organization disbanded. It had served the industry well in recording the activity of one of the nation's important oil regions.

Three commercial reporting services replaced the cooperative check, but one of these, Oil Well Information, Olney, Illinois, stopped operation early in January 1962. Petroleum Information Corporation, Evansville, Indiana, and Denver, Colorado, and Scout Check Incorporated, Evansville, Indiana, now provide the service.

The Illinois Geological Survey cooperates with both companies by sending them copies of certain types of public information that the Survey has collected. The commercial services, in turn, furnish data to the Survey. The Survey continues to publish its Monthly Oil and Gas Drilling Report, which has been printed each month since November 1936.

Other services for the oil industry provided by the Illinois Geological Survey are the collection and maintenance of files of company well records by the Mineral Resource Records Section, and the well sample collection stored and maintained by the Stratigraphy and Areal Geology Section. These records and samples are on file for use by the general public. Members of the Oil and Gas and the Petroleum Engineering Sections provide information by both letter and personal consultation on geologic and industry problems.

ADDITIONS AND CHANGES IN WELL RECORDS

Table 1 is a condensed tabulation of formerly unreported holes that were drilled in Illinois, essentially between the years 1946 and the end of 1960. Company information on the holes is on file in the Mineral Resource Records Section of the Geological Survey, but information on many of these holes has not been included in our previous industry reports.

Many former producing wells have been converted to various types of input and disposal wells in the waterflood areas. The majority of these had been carried in our statistics as producing wells at the time of their first completion.

Included in the total of 10,039 holes are 2,090 new producing wells, drilled chiefly in the development of secondary recovery operations, 194 dry holes that were drilled for oil or gas production, and 87 wells, formerly abandoned as dry holes, worked over and completed as producing wells. Eighty-four of the wells were work-overs

of former producing wells, but the new production was found in different pay zones. A total of 103 of the wells were stratigraphic and structure tests drilled in oil and gas exploration. Pool data have been modified to include wells listed in table 1. Changes can be noted by comparing tables 5 and 6 of Illinois Petroleum 75 with tables 18 and 19 of this report.

Wells classified as service wells in table 1 include new wells and converted wells. The new service wells include 2,806 water and gas input, salt water disposal, and water supply wells drilled in developing waterflood projects and in connection with regular pool development. The 4,223 service wells classified as conversions include 3,815 former producing wells that were worked over and completed as service wells, and 408 other types of holes that have been converted in connection with secondary recovery projects. The former producing wells were tallied separately to give a more accurate check of wells that are no longer producing oil.

The development of gas storage projects in Illinois has called for the drilling of many holes, both as structure tests in exploration for the location of possible storage sites and as injection and withdrawal wells in the gas storage projects. Many of these, because of the locations of the projects, are in areas where little was known of the subsurface geology, and are drilled into Ordovician and Cambrian rocks, which are older than those from which oil and gas production in Illinois has been obtained to date. The Survey has records of 259 wells drilled as structure tests and 193 drilled in connection with the development of gas storage projects before 1961.

All figures listed in table 1 are subject to change.

The statistics given in table 1 on previously unreported wells could not be broken down very easily into annual completions, but the graph of drilling permits issued yearly (fig. 1-A) indicates that while there is little discrepancy between permits issued and total wells drilled in 1946, just a few years after that and continuing through 1960 there is a widening discrepancy in the totals. Figure 1-B indicates that waterflooding began in 1943, and most of the differences in data on scouted and unscouted wells is accounted for by holes drilled in these areas. Holes drilled in gas storage projects also are a significant factor.

Drilling permits are issued by the Oil and Gas Division of the Department of Mines and Min-

TABLE 1 - COUNTY TABULATION OF UNLISTED HOLES DRILLED MAINLY FROM 1946 THROUGH 1960

County	Oil and gas					Service wells			Gas storage		Total
	New wells		OWWO		Struc- ture tests (O&G)	New serv- ice wells	Conversions		Struc- ture tests	Stor- age proj- ects	
			D&A to prod.	Prod.to prod.in new pay zone			Were prod.	Other			
	D&A	Prod.									
Adams					1						1
Bond		3	1	1	9	9	7	7			37
Champaign									13	21	34
Christian	1				6	5	37	4			53
Clark	32	278	1		2	277	17	6			613
Clay	1	1	7	2		15	203	23			252
Clinton	2	39	1	1	13	56	121	19			252
Coles		4	2		2	34	60	4		4	110
Cook									1		1
Crawford	80	859	2		2	974	125	12			2,054
Cumberland	2	58				60	1				121
DeKalb									6		6
Douglas			1			19	1		1	2	24
Edgar		2				4	7	4	5	1	23
Edwards	3	2	4	3		8	94	10			124
Effingham				1	3	1	11	7			23
Fayette	3	17	1	23	2	210	516	77			849
Franklin	1					8	156	18			183
Ford									3		3
Fulton									1		1
Gallatin	1	6	1	1		29	169	17			224
Greene	1				5						6
Grundy									2		2
Hamilton	4	23	1	5	2	37	206	25			303
Hancock	1				2						3
Iroquois									76	6	82
Jackson					1						1
Jasper		1		4			44	3			52
Jefferson	1	4	2			18	57	17			99
Kankakee									1	73	74
Kendall									3		3
Lawrence	17	659	9	5		685	62	7			1,444
LaSalle									112	9	121
Livingston									10		10
Logan									5		5
McDonough	2						1				3
McLean									2		2
Macon									3		3
Macoupin	4						2	2		6	14
Madison	5	6			1	18	4	2	3	5	44
Marion	3	5		7	1	26	584	29			655
Monroe										21	21
Montgomery	3				13		2	2			20
Morgan					7						7
Moultrie					1			1			2
Perry					4						4
Peoria					7						7
Piatt					1				2	1	4

OIL AND GAS DEVELOPMENTS

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Table 1 - Continued

County	Oil and gas				Service wells			Gas storage		Total	
	New wells		OWWO		Struc- ture tests (O&G)	New serv- ice wells	Conversions		Struc- ture tests		Stor- age proj- ects
			D&A to prod.	Prod.to prod.in new pay zone			Were prod.	Other			
	D&A	Prod.									
Pike	1									1	
Randolph							1			1	
Richland			3	1		19	144	5		172	
St. Clair		1			2	3	23		44	73	
Saline		3	1			2	17	5		28	
Sangamon					8					8	
Shelby					5	1	1	1		8	
Tazewell									10	10	
Wabash	16	50	2	9		121	241	23		462	
Washington		1			2	7	53	5		68	
Wayne	5	26	28	8		46	361	30		504	
White	5	42	20	13	1	114	488	42		725	
Totals*	194	2,090	87	84	103	2,806	3,815	408	259	193	10,039

* All totals are subject to change.

erals in Springfield, Illinois. Complete statistics on permits issued before 1946 were not readily available when this graph was prepared. Permits are issued for secondary recovery and gas storage projects and for stratigraphic and structure tests for oil and gas exploration, as well as for drilling for oil and gas.

It must be understood that not all permits are used, and that many holes are completed later than the year of issuance of permits.

OIL PRODUCTION AND VALUE

Oil production in Illinois during 1961 totaled 77,478,000 barrels, which is slightly more than the annual production for 1959 and 1960. Illinois, which yielded about 3 percent of the total produced, continued to rank eighth in crude oil production in the United States.

For the last seven years oil production in the state has continued at an almost constant rate of nearly 80 million barrels. This is about half that of the 147,647,000 barrels of oil produced in 1940, the peak production year in Illinois, which was reached soon after the discovery of oil in the Illinois Basin (fig. 1-B and table 2). Secondary recovery projects are chiefly responsible for maintaining the high rate of production, and about 66.7 percent of the 1961 production was estimated to be attributable to waterflooding. Reserves of oil added by new discoveries and pool development during recent years have been very small in com-

parison with the first years of the Illinois Basin development, but the use of the hydraulic fracture treatment as a normal completion process for many of the wells has aided in bringing and maintaining the production 20 million barrels above the low rate reached in 1953.

A total of 2,307,864,000 barrels of oil has been produced in Illinois to date, of which 1,881,459,000 barrels, or about 82 percent, has been produced since the discovery of oil in the Illinois Basin in 1937.

Table 2 lists the number of well completions and production by years, and figures 1-A and 1-B show these data graphically. As indicated in the text (page 5 and table 1) the total number of completions and producing wells differs somewhat from that given in table 2. It is not possible to give accurate figures for these years, but the graph of permits issued yearly gives an indication of the distribution of drilling. The number of completions shown for the years before 1961 includes only holes drilled for oil and gas. The number of producing wells listed for 1943 through 1961 includes some former dry holes that were reworked or deepened and completed as producers. Seventy-five of the 1961 producers are in this category.

Table 3 lists by counties the number of holes drilled during 1961, footage drilled, and production. It includes all holes drilled for oil and gas exploration and development and in the development of underground gas storage projects.

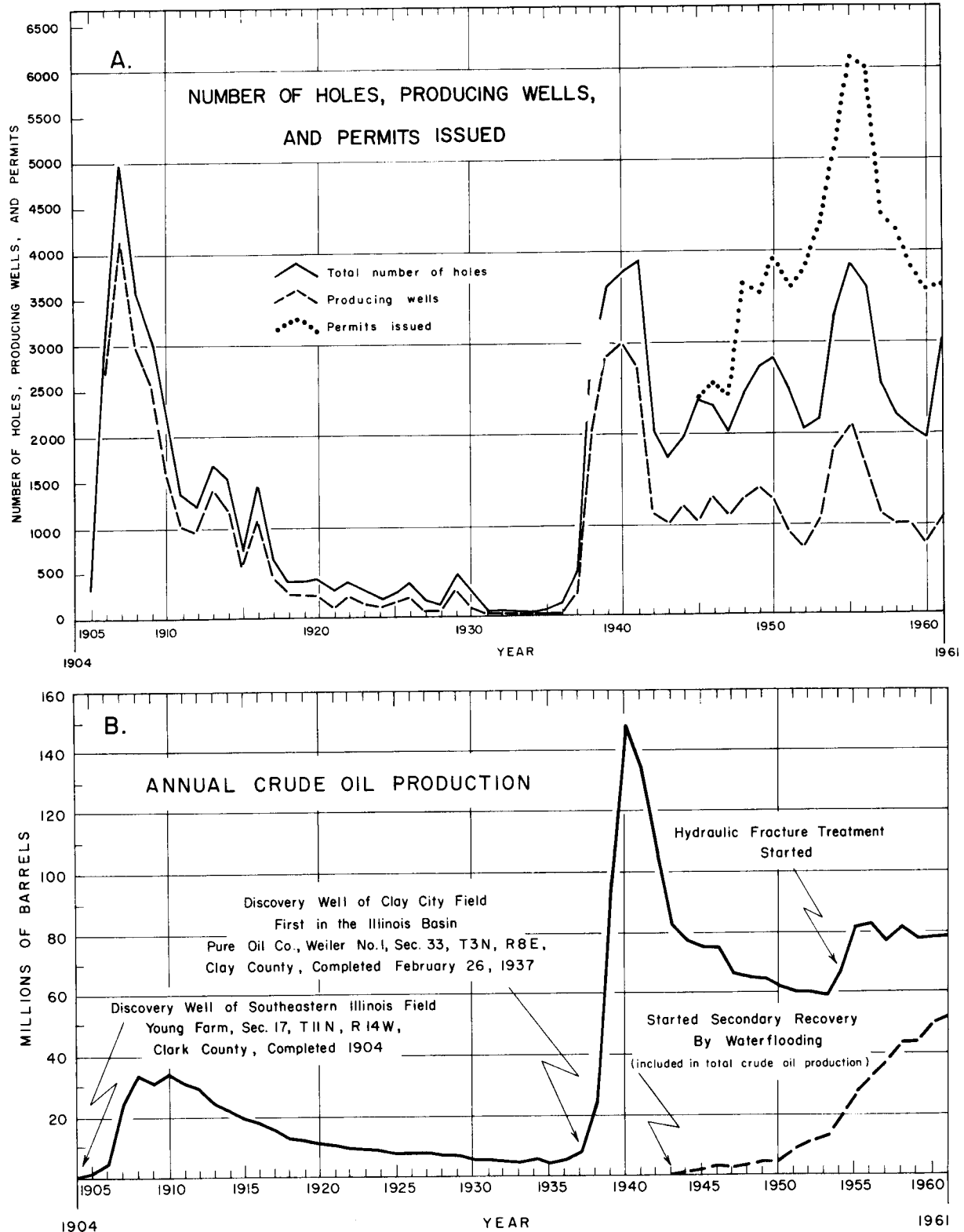


Fig. 1 — A. Total number of holes drilled and producing wells completed in Illinois since 1905, and permits issued since 1945. B. Annual crude oil production in Illinois, 1904-1961. Litchfield pool, Montgomery County, discovered in 1886, was the first commercial pool in Illinois. Total production from 1889 to 1902 was about 22,000 barrels of oil.

OIL AND GAS DEVELOPMENTS

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TABLE 2 - ILLINOIS COMPLETIONS, PRODUCING WELLS, AND PRODUCTION BY YEAR SINCE 1905*

Year	Total completions ^a	Producing wells ^b	Annual production ^c	Year	Total completions ^a	Producing wells ^b	Annual production ^c
1905	300(approx.)	-	181	1933	36	10	4,244
1906	3,283	2,793	4,397	1934	26	11	4,479
1907	4,988	4,260	24,282	1935	34	17	4,322
1908	3,574	3,019	33,686	1936	93	52	4,445
1909	3,151	2,593	30,898	1937	449	292	7,426
1910	2,149	1,681	33,143	1938	2,536	2,010	24,075
1911	1,365	1,061	31,317	1939	3,617	2,970	94,912
1912	1,260	980	28,602	1940	3,755	3,080	147,647
1913	1,721	1,443	23,894	1941	3,807	2,925	134,138
1914	1,579	1,223	21,920	1942	2,017	1,179	106,590
1915	757	558	19,042	1943	1,791 ^d	1,090	82,256
1916	1,461	1,139	17,714	1944	1,991	1,229	77,413
1917	646	497	15,777	1945	1,763	1,094	75,210
1918	396	287	13,366	1946	2,362	1,387	75,297
1919	370	256	11,960	1947	2,046	1,102	66,459
1920	385	260	10,774	1948	2,489	1,316	64,808
1921	267	165	10,043	1949	2,741	1,447	64,501
1922	341	254	9,383	1950	2,894	1,328	62,028
1923	260	148	8,707	1951	2,383	947	60,244
1924	174	125	8,081	1952	2,077	854	60,071
1925	231	161	7,863	1953	2,161	1,161	59,025
1926	349	232	7,760	1954	3,254	1,896	66,940
1927	162	96	6,994	1955	3,885	2,164	81,131
1928	145	87	6,462	1956	3,640	1,742	82,314
1929	433	331	6,319	1957	2,585	1,114	76,649
1930	253	134	5,736	1958	2,291	1,066	80,779
1931	53	19	5,039	1959	2,032	1,034	76,727
1932	52	19	4,673	1960	1,922	818	77,341
				1961	3,090	1,103	77,478

* Production data for 1905-1960 are from Illinois Petroleum 75, and for 1961, from Tri-State Oil Scouts Association Pipeline Production Report.

Data on completions and producing wells for 1905-1960 are from Illinois Petroleum 75, and for 1961 from Tri-State Oil Scouts Association, Oil Well Information, Petroleum Information Corporation, Scout Check, Incorporated, and Mineral Resource Records Section of the Illinois State Geological Survey.

a Total number of completions through 1960 includes only oil and gas wells in wildcat and primary producing areas; 1961 includes, in addition to these wells, oil wells, service wells and service well conversions in waterflood areas, structure tests, and wells drilled for the underground storage of natural gas.

b Number of producing wells includes gas wells. Oil wells in waterflood projects included in 1961 only.

c Thousands of barrels.

d Data on wells drilled since about 1943 are incomplete. See figure 1-A which shows permits issued yearly since 1946, and table 1 showing totals of all unscouted wells completed before 1961.

TABLE 3 - SUMMARY OF DRILLING, PRODUCTION, AND FOOTAGE DRILLED BY COUNTIES, 1961

County	Total completions	Number of wells completed							Total Footage Drilled	Total oil production (M bbls)
		Oil and gas		Service wells-waterflood projects			Gas storage projects			
		New producers	Structure tests	D&A	New service wells	Former prods.		Conversions		
Adams	65	20	-	45	-	-	-	-	43,845	37
Bond	18	3	-	13	-	-	-	2	22,505	256
Brown	37	4	-	33	-	-	-	-	24,335	34
Cass	3	-	-	3	-	-	-	-	2,590	-
Champaign	11	-	-	4	-	-	-	4	5,759	-
Christian	87	48	-	36	-	3	-	-	156,685	1,451
Clark	63	26	-	21	-	5	3	1	42,882	1,265 ^b
Clay	168	92	-	61	-	15	-	-	443,113	2,670
Clinton	52	13	4	24	-	9	2	-	65,130	1,686
Coles	62	5	-	17	-	3	19	18	24,043	454
Cook	13	-	-	-	-	-	-	13	13,104	-
Crawford	243	112	6	36	83	6	-	-	287,094	4,155
Cumberland	11	2	-	4	5	-	-	-	8,851	(b)
DeWitt	14	-	-	-	-	-	-	14	17,867	-
Douglas	39	3	-	26	-	9	1	-	29,783	220
Edgar	13	4	-	9	-	-	-	-	8,503	68
Edwards	19	1	-	15	-	3	-	-	29,941	1,232
Effingham	18	3	-	14	-	-	1	-	36,392	384
Fayette	40	11	-	10	5	14	-	-	54,127	13,908
Franklin	96	56	-	33	1	3	3	-	235,426	2,162
Gallatin	78	47	-	22	3	5	1	-	200,817	1,369
Hamilton	91	19	-	20	7	42	3	-	138,066	3,612
Hancock	1	-	-	1	-	-	-	-	655	51 ^c
Henderson	1	-	-	1	-	-	-	-	428	-
Iroquois	18	-	-	-	-	-	-	10	15,612	-
Jackson	1	-	-	1	-	-	-	-	592	-
Jasper	70	37	-	24	-	9	-	-	161,883	721
Jefferson	133	51	-	39	12	17	14	-	300,011	2,373
Jersey	3	-	-	3	-	-	-	-	1,902	-
Kankakee	17	-	-	-	-	-	-	10	19,265	-
LaSalle	76	-	-	-	-	-	-	53	49,589	-
Lawrence	300	173	-	28	76	19	4	-	531,306	7,743
Livingston	7	-	-	-	-	-	-	7	3,736	-
Logan	1	-	-	1	-	-	-	-	1,965	-
McDonough	4	-	-	4	-	-	-	-	3,178	(c)
McLean	9	-	-	-	-	-	-	9	9,391	-
Macon	12	4	-	8	-	-	-	-	22,798	23

OIL AND GAS DEVELOPMENTS

Macoupin	27	2	-	23	1	1	-	-	10	17,880	-
Madison	44	15	-	22	2	1	3	1	319	27,448	-
Marion	62	9	-	15	1	34	-	-	9,878	51,583	-
Massac	1	-	-	1	-	-	-	-	-	861	-
Montgomery	13	-	-	13	-	-	-	-	2	14,229	-
Morgan	5	-	-	5	-	-	-	-	-	4,144	-
Moultrie	5	-	-	5	-	-	-	-	3	9,671	-
Peoria	1	-	-	-	-	-	1	-	-	886	-
Perry	7	2	1	4	-	-	-	-	31	9,990	-
Piatt	3	-	-	2	-	-	1	-	-	6,102	-
Pike	17	-	-	17	-	-	-	-	-	9,213	-
Randolph	8	1	-	7	-	-	-	-	214	13,331	-
Richland	68	32	-	22	2	11	-	-	2,489	166,427	-
St. Clair	28	6	-	13	-	-	-	9	6	15,770	-
Saline	69	41	-	18	2	6	-	-	566	156,484	-
Sangamon	69	23	-	45	-	-	1	-	141	110,327	-
Schuyler	16	-	-	16	-	-	-	-	-	9,928	-
Scott	7	-	-	7	-	-	-	-	-	3,639	-
Shelby	23	8	-	15	-	-	-	-	79	43,254	-
Tazewell	5	-	-	-	-	-	5	-	-	5,477	-
Union	2	-	-	2	-	-	-	-	-	1,260	-
Vermilion	1	-	-	1	-	-	-	-	-	1,678	-
Wabash	129	37	-	32	8	48	-	-	2,677	151,566	-
Warren	1	-	-	1	-	-	-	-	-	475	-
Washington	80	21	21	31	-	5	-	1	621	90,166	-
Wayne	183	46	-	61	8	66	-	-	6,236	377,364	-
White	294	126	-	82	10	67	-	-	8,286	610,384	-
Williamson	1	-	-	1	-	-	-	-	46	1,944	-
Woodford	27	-	-	-	-	-	27	-	-	25,498	-
Totals	3,090 ^e	1,103 ^d	32	1,017	236	417	177	52	77,478	4,950,148	-

a Former D&A, or other types of holes converted in connection with waterflood projects.

b Production is combined for Clark and Cumberland counties.

c Production is combined for Hancock and McDonough counties.

d Includes 18 gas wells. Does not include gas wells completed in Tilden North gas storage project.

e Includes a number of former completions that have been worked over.

These include structure tests, service wells, and service-well conversions in waterflood projects, and structure tests and development wells drilled in connection with finding and developing underground gas storage areas. Farm and city water wells are not included in this list.

Table 4 gives figures on the daily average crude oil production in Illinois by months during 1961. Oil production statistics used in this annual report were furnished by the Illinois Pipeline Production Report, but the daily averages given in table 4 have been slightly modified because the production of some leases was not reported during the month of actual production.

TABLE 4 - DAILY AVERAGE CRUDE OIL PRODUCTION BY MONTHS DURING 1961

<u>Month</u>	<u>Barrels</u>	<u>Month</u>	<u>Barrels</u>
January	204,194	July	208,839
February	215,464	August	228,194
March	217,065	September	214,967
April	208,600	October	215,548
May	207,452	November	212,500
June	213,067	December	201,645

Illinois crude oil sold for \$3.00 a barrel throughout 1961 and the total value, at the wells, of crude oil produced in Illinois in 1961 was estimated at about \$232,434,000. To this should be added the value of natural gasoline and liquefied petroleum gas extracted from Illinois natural gas, which was estimated at \$1,100,000. Total value of Illinois oil produced during the year was thus \$233,534,000.

Fayette, Marion, White, Lawrence, and Wayne Counties again were the leading oil producers during 1961, and had a total combined production of slightly over 46 million barrels. These counties (table 5) ranked in the same order in production as during 1960* with nearly the same amount of production per county. Fayette County, with most of its production from the Loudon pool, outranked the second highest county, Marion, by about 4 million barrels. The five counties produced 59 percent of the state's oil in 1961.

* An error in table 3 in Illinois Petroleum 75 (1961) gave White County production as 4,308,000 instead of 8,308,000 barrels.

TABLE 5 - FIVE LEADING CRUDE OIL PRODUCING COUNTIES IN ILLINOIS, 1961

<u>County</u>	<u>Production (M bbls)</u>	<u>Percentage of state total</u>
Fayette	13,908	18.0
Marion	9,878	12.7
White	8,286	10.7
Lawrence	7,743	10.0
Wayne	6,236	8.0
Total	46,051	59.4

Each of the pools listed in table 6 produced more than a million barrels of oil during 1961 and their total production was 55,629,000 barrels, or 71.8 percent of the state's production. Almost half of this total was produced by the Loudon pool and the old Southeastern Illinois Oil Field area in Clark, Crawford, Lawrence, and Wabash Counties and small parts of several adjacent counties, each of which produced over 13 million barrels.

TABLE 6 - POOLS PRODUCING MORE THAN ONE MILLION BARRELS OF OIL, 1961

<u>Pool</u>	<u>Production (M bbls)</u>	<u>Percentage of state total</u>
Loudon	13,504	17.4
Southeastern Illinois Oil Field	13,297	17.2
Salem C*	9,795	12.6
Clay City C	6,438	8.3
New Harmony C	5,252	6.8
Dale C	3,097	4.0
Johnsonville C	1,675	2.2
Sailor Springs C	1,298	1.7
Roland C	1,272	1.6
Total	55,629	71.8

* C = Consolidated

1961 DRILLING

The figures on drilling activity in Illinois given in annual reports prior to 1961 were based on information received from the Tri-State Oil Scouts Association and its predecessors. These reports covered only wells drilled for oil and gas in areas principally outside waterflood projects. Because the current report includes wells in waterflood projects and other categories of wells not reported by scouts, it is difficult to compare the drilling activity 1961 with that of previous years. The number of newholes drilled for oil and gas outside waterflood areas in 1961 probably declined somewhat. There has been a steady decline in the number of these wells drilled since 1955 when the scouts reported a total of 3,885; the number reported by the scouts in 1960 was 1,922.

A total of 3,090 wells was reported completed in 1961 (tables 2, 3, 18, 19, fig. 1A). Oil and gas wells accounted for 2,152 completions, including 1,103 producing wells, of which 70 oil and 5 gas wells are former dry holes reworked or deepened; 32 structure tests for oil and gas; and 1,017 dry holes. Service wells in waterflood projects made up 709 of the total completions, including 236 new holes and 473 conversions, most of the latter being former oil wells. A total of 229 completions drilled in connection with the underground storage of natural gas was reported; 177 of these were structure tests and 52 were development wells in existing storages.

Most of the drilling activity in 1961 was in southeastern Illinois. The Adams-Brown County area in western Illinois continued to be active. One new pool, Buckhorn in Brown County, was discovered and it had one well, a Silurian producer, at the end of the year.

Oil and gas tests were drilled in 56 of the 102 counties in the state (table 3) during the year. Wildcat tests were made in all 56 counties except Jackson, and accounted for all of the drilling in seventeen.

A total of 516 new wildcat tests (a half mile or more from production) were drilled, 48 of which were successful, a success ratio of 9.3 percent (table 7). In addition, 12 wildcats that had been completed previously as dry holes were reworked or deepened and recompleted as producers. The 15 oil and gas pool discoveries are listed in table 8 and the 45 extensions in table 9, and locations for wells in both tables are shown in figure 2.

Table 7 is a summary of reported wildcat

TABLE 7 - WILDCAT TESTS DRILLED BETWEEN 1945 AND 1961

Year	Total drilled	Producers	Percentage successful
1945	460	73	16.0
1946	633	89	14.0
1947	536	97	18.1
1948	628	75	11.9
1949	746	93	12.5
1950	830	102	12.3
1951	839	94	11.1
1952	660	69	10.5
1953	523	63	12.0
1954	679	85	12.5
1955	846	110	13.0
1956	1,028	90	8.8
1957	788	64	8.2
1958	639	56	8.8
1959	535	48	9.0
1960	661	43	6.5
1961	516	48	9.3
Totals	11,547	1,299	11.2

* One-half mile or more from production.

wells drilled between 1945 and 1961, with percentage of success for each year.

Nine of the new oil pools were discovered in rocks of Mississippian age (table 8). At the end of the year, although final reports had been received on only three wells in the pool, the newly discovered Mode pool in Shelby County, with production from Bethel, Benoist, and Aux Vases sands, was reported to have about 30 oil wells, the largest number of any of the new pools. Secondary recovery operations have been started in the pool.

Trumbull North pool in White County, with three wells, was discovered in Aux Vases sand and had the McClosky lime pay zone added by the end of the year. Enfield South in White County had two wells; production is from the Aux Vases sand and McClosky lime.

The other new Mississippian oil pools had only one well each. Shattuc North in Clinton County and Dollville in Shelby County each had

TABLE 8 - FIFTEEN NEW POOL DISCOVERIES, 1961
E, East; Cent, Central; N, North; NE, Northeast; S, South;

Map no.	General location	Operator, well no., and farm	Pool	Initial production	Pay zone	Top of pay zone	Total depth feet	Com-pletion date	Remarks
1	BOND 17-4N-2W	C. E. Hoiles #1 Schneider-Poland	Beaver Creek NE	13,500 MCFG	Benoist	1,131	2,487	11-29	Was old strat. test to ID 2,487
2	BROWN 33-1S-4W	J. P. Johnson #1 R. Davis	Buckhorn	48 BO	Silurian	682	685	8-23	
3	CHRISTIAN 26-13N-1E	C. B. Mansfield #1 Wysong	Assumption Cent	13 BO/2 BW	Devonian	2,433	2,437	5-31	Pool abd. 7-28-61
4	CLINTON 10-2N-1W	Stortzum #1 Swagler	Shattuc N	12 BO/8 BW	Benoist	1,445	1,470	1-11	OWMD, was D&A, OTD 1,470 ft.
5	FRANKLIN 24-5S-4E	C. E. Brehm #1 Hutchcraft Unit	Macedonia	75 BO	Harrodsburg	4,097	5,249	2-15	OWMO, was D&A, OTD 3,304 ft.
6	JEFFERSON 22-2S-4E	Pure Oil Co. #1 Huff Consol.	Bluford	194 BO/6 BW	McClosky	3,060	3,112	7-5	
7	16-3S-4E	Wm. E. Lampley #1 DeMik	Opdyke	75 BO	McClosky	3,074	3,180	11-17	
8	ST. CLAIR 20-2S-7W	Wm. H. Krohn #1 Kunkelmann	New Athens	350 MCFG	Cypress	256	311	6-21	
9	SANGAMON 32-15N-3W	J. F. Waters #1 Waters	Berry	12 BO/4 BW	lurian	1,735	1,774	10-18	
10	SHELBY 21-10N-4E	Grubb & Durr #2 H. H. Hoskins	Mode	114 BO/8 BW	Bethel Benoist Aux Vases	1,694 1,741 1,771	1,960	6-7	

11	SHELBY 28-12N-2E	J. P. Potsch #1 C. & R. Weber "A"	Dollville	8 B0/12 BW	Bethel	1,509	1,516	3-29	
12	WASHINGTON 30-3S-5W	Illinois Power Co. #1 -Peabody Comm.	Tilden N	2,333 MCFG	Cypress	800	2,131	2-8	OWWO, was D&A, OTD 2,131 ft. Tilden N Gas storage project
13	WAYNE 35-2S-7E	F. M. Pierce #1 W. E. Clark	Aden E	12 B0/8 BW	McClosky	3,440	3,552	2-22	OWWO, was D&A, OTD 3,552 ft. Pool abd. 5-11-61
14	WHITE 24-4S-8E	Shulman Bros. #1 Stocke Hrs.	Trumbull N	30 B0/225 BW	Aux Vases	3,327	3,537	2-15	
15	7-6S-8E	Slagter Prod. Corp. #1 E. Healy	Enfield S	91 B0/72 BW	Aux Vases McClosky	3,174 3,277	3,286	11-15	

one Bethel sand well, Bluford and Opdyke in Jefferson County and Aden East in Wayne County were discovered in McClosky lime (Aden East was abandoned before the end of the year), and Macedonia pool in Franklin County produced from Harrodsburg lime.

The three new gas pools were in Mississippian rocks. Beaver Creek Northeast in Bond County and New Athens in St. Clair County each had one well, the former in the Benoist sand and the latter in the Cypress sand. Tilden North gas pool in St. Clair and Washington Counties is in Cypress sand and is being developed as a gas storage project.

One new Devonian oil pool, Assumption Central in Christian County, was discovered in 1961, but it was abandoned before the end of the year.

Buckhorn pool in Brown County and Berry pool in Sangamon County were the only two new oil pools discovered in the Silurian. Each had one well at the end of the year.

Distribution of the new pools is shown in figure 2. Six of the pools are in the deep part of the basin in southeastern Illinois; four are in southwestern Illinois, west of the Duquoin Monocline; four are in the northern producing area of the basin; and one is in Brown County, far to the northwest of the main producing area of the state.

Perhaps the most important new pay zone discovery for the year is the Dutch Creek sand production in Goldengate Consolidated pool in Wayne County. This new pay zone in the pool is discussed on page 19. Twenty-four of the 26 new pays (table 10) are of Mississippian age. These include two new pay zones for Illinois. Phillips-town Consolidated pool in White County has the first Kinkaid sand well in Illinois, although the Kinkaid has been a producing zone just across the Wabash River in Indiana. A small Burlington-Keokuk lime producer was completed in the Roby pool in Sangamon County.

One of the largest gas wells ever completed in Illinois was the C. E. Hoiles #1 Schneider-Poland with 13,500,000 cubic feet of gas from Benoist sand; it was the discovery well of Beaver Creek Northeast gas pool in Bond County.

Ninety-nine holes that were new pool discoveries, extensions to pools, discovery wells of new pay zones in pools, and significant unsuccessful exploratory tests are listed in tables 8, 9, 10, and 11, and their locations are shown in figure 2. Six of the holes are listed in two of the tables. Some wells in table 11 were completed as

TABLE 9 - DISCOVERY WELLS OF FORTY-FIVE EXTENSIONS TO POOLS IN 1961
C, Consolidated; E, East; N, North; S, South; W, West

Map no.	General location	Operator, well no., and farm	Pool	Initial production	Pay zone	Top of pay zone	Total depth feet	Completion date	Remarks
16	CHRISTIAN 36-15N-2W	Armstrong & Spence #1 Beilsmith	Mt. Auburn C	35 BO/30 BW	Silurian	1,942	1,946	8-30	
17	CLARK 35-12N-14W	J. D. Kuykendall #1-A L. P. Ross	Westfield	10 MCFG	Pennsylvanian	367	438	8-9	Shut in
18	CLAY 2-2N-7E	Pure Oil Co. #1 L. J. Bissey	Clay City WC	21 BO/26 BW	McClosky	3,058	3,590	7-5	
19	17-2N-7E	Black & Black Oil #1 H. C. Skelton	Clay City WC	25 BO	Spar Mtn	3,106	3,200	8-16	
20	34-3N-7E	J. R. Van Buskirk #1 Hoard	Sailor Springs C	30 BO/2 BW	Aux Vases Spar Mtn	2,948 3,039	3,153	11-22	OWMO, was D&A, OTD 3,153
21	35-3N-7E	W. S. Davis #B-1 J. Hunley	Clay City WC	9 BO	Spar Mtn McClosky	3,058 3,095	3,131	11-22	OWMO, was D&A, OTD 3,131
22	9-4N-6E	J. L. McManamy #1 Zurweste	Louisville N	15 BO/2 BW	Spar Mtn	2,812	2,845	11-8	
23	8-4N-8E	C. D. Reed #1 F. Stanley	Ingraham	5 BO/30 BW	Aux Vases	2,903	3,020	7-19	
24	CRAWFORD 12-6N-12W	M. L. Van Fossan #1 Peelman	Main C	468 MCFG	Pennsylvanian	990	1,004	1-4	Shut in
25	21-8N-12W	H. F. Robison #1 Newlin	Main C	8 BO	Pennsylvanian	1,006	1,017	7-12	
26	CUMBERLAND 2-9N-10E	C. Keyser #1 R. Wetherholt	York	3 BO	Pennsylvanian	570	981	6-21	
27	FAYETTE 1-1-2E	R. Brown #1 Walker	Wilberton	52 BO/9 BW	Carper	3,156	3,445	10-25	

OIL AND GAS DEVELOPMENTS

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28	FRANKLIN 6-7S-3E	J. W. Thompson #1 A. Garragus	West Frankfort C	2 BO/17 BW	Ohara	2,802	2,942	8-16
29	10-7S-4E	Collins Bros. #1 Ira	Thompsonville N	192 BO/52 BW	Aux Vases	3,119	3,206	7-5
30	GALLATIN 29-7S-8E	Petromin Corp. #1 Bruce	Omaha	120 BO/3 BW	Cypress	2,450	2,978	10-6
31	JASPER 19-5N-8E	Whaley Oil Corp. #1 B. Cornwall	Sailor Springs C	56 BO/65 BW	Cypress	2,552	2,992	3-22
32	19-5N-11E	J. Barker #1 H. Schilt	Stringtown	24 BO	McClosky	2,999	3,125	12-6
33	27-7N-9E	Vickery Drlg. Co. #1 G. Scott et al.	Newton W	196 BO	McClosky	2,971	2,985	11-1
34	12-7N-10E	Parrish & Ensminger #1 J. E. Marshall	Clay City C	32 BO	Spar Mtn	2,468	2,502	3-8
35	MACON 2-16N-3E	R. A. Day #1 Ginder Comm.	Oakley	3 BO/9 BW	Cedar Valley	2,260	2,328	10-11
36	MACOUPIN 1-8N-8W	O. R. Shull #1 Messner	Plainview	340 MCFG	Pennsylvanian	441	462	2-22
37	MARION 10-3N-1E	W. J. Pfeffer #3 F. Lippert	Patoka S	11 BO/24 BW	Benoist	1,525	1,532	9-13
38	16-3N-1E	T. M. Conrey #2 Cattani	Patoka S	5 BO	Cypress	1,330	1,336	10-22
39	RICHLAND 23-3N-10E	R-K Pet. Corp. #1 K. Combs	Ritter	150 BO	Ohara	3,200	3,205	8-16
40	SALINE 35-8S-5E	Chaba Oil Co. #1 C. Rice	Harco E	1 BO/3 BW	Aux Vases	2,814	2,909	2-8

(Continued on next page)

Table 9 - Continued

Map no.	General location	Operator, well no., and farm	Pool	Initial production	Pay zone	Top of pay zone	Total depth feet	Com-pletion date	Remarks
41	SALINE 13-8S-6E	Mutual Oil & Gas #1 Johnson	Eldorado C	29 BO/60 BW	Aux Vases	2,998	3,070	7-26	
42	24-8S-6E	Charter Oil & Gas #1 Union Chemical	Eldorado C	250 MCFG	Tar Springs	2,176	3,037	1-18	Shut in. OWMO, was D&A, OTD 3,037
43	35-8S-6E	Bufay Oil Co. #1 Sprich-Lorch	Eldorado C	226 BO	Waltersburg	2,024	2,147	8-9	
44	SANGAMON 1-14N-4W	Atkins & Hale #1 Spicer	Edinburg W	22 BO/38 BW	Silurian	1,728	1,758	12-6	
45	2-14N-4W	Homeier & Weber #1 H. J. Kunz	Edinburg W	50 BO/86 BW	Silurian	1,790	1,716	10-11	
46	19-14N-4W	R. E. Neat Pet. Dev. Co. #1 Clayton	Glenarm	26 BO/21 BW	Silurian	1,702	1,720	2-1	
47	20-14N-4W	T. C. Rappe #2 Blakeley	Glenarm	210 BO	Silurian	1,707	1,727	7-5	
48	12-15N-3W	D. Beckham #1 J. George	Roby	4 BO/100 BW	Burlington- Keokuk	1,336	1,905	8-9	OWMO, was D&A, OTD 1,905
49	31-15N-4W	Morgan & Wilkening Oil Co. #1 Miller "A"	Springfield E	9 BO/72 BW	Silurian	1,580	1,617	3-22	
50	WABASH 3-2S-14W	E. H. Morris #1 Eliz. Frese	Browns	4 BO	Cypress	2,703	3,062	1-11	
51	WASHINGTON 2-2S-1W	C. T. Evans #1 Droege Unit	Richview	45 BO	Cypress	1,480	1,516	9-27	
52	35-2N-8E	Smith Oil Co. #1 C. G. Elett	Clay City C	3 BO	Spar Mtr	3,102	3,183	6-7	

53	WAYNE 11-2S-6E	Peake Pet. Co. #1 Lawrence	Covington S	30 BO	Harrodsburg	4,152	4,170	10-11
54	23-2S-6E	Natl. Assoc. Pet. Co. #2 L. H. Johnson	Covington S	225 BO	McClosky	3,307	4,202	8-2
55	12-2S-9E	R. H. Troop #1 Wm. Kerr	Ellery N	48 BO	St. Louis	3,438	3,444	9-20
56	WHITE 17-4S-10E	E. F. Moran #1 Ingram	Sumpter E	160 BO	Ohara	3,161	3,303	8-16
57	31-4S-14W	E. D. Harmon #1 Clifford Hrs.	New Harmony C	25 BO	Ohara	2,999	3,135	9-27
58	10-5S-10E	J. H. Murphy #1 G. Rudolph	Phillipstown S	10 BO/20 BW	Spar Mtn	3,083	3,091	8-23
59	11-5S-10E	Slagter Prod. Corp. #1 D. Brown	Phillipstown C	15 BO	Kinkaid	1,954	2,400	8-2
60	10-6S-9E	Natl. Assoc. Pet. #1 C. W. Goudy	Storms C	22 BO/70 BW	Cypress	2,692	3,166	8-16

OWMO, was D&A,
OTD 3,411

producing wells in pay zones above the deepest zone tested.

Figure 2 also shows the locations of the main tectonic features of Illinois, including for the first time the Sangamon Arch, which extends northeast-southwest through central Illinois. This arch was so named by Lester L. Whiting of the Illinois State Geological Survey staff, who has used the name in addresses relating to Devonian structure and stratigraphy. The name will be officially introduced in a report on the Sangamon Arch area, which is now in preparation.

Thirty-eight counties had both pool development and wildcat drilling in 1961. Seventeen counties had only wildcat drilling. Jackson County had only one well drilled, a dry hole in a pool (table 3).

Although pool development wells were widely scattered, most were in the southeastern part of the state. Lawrence County had 173 new producing wells completed and was followed by White with 126, Crawford with 112, and Clay with 92. These figures include wells drilled in waterflood projects.

Twenty-two pools had 10 or more new producing wells completed in 1961. Lawrence pool had 166, Main Consolidated 108, Clay City Consolidated 72, Sailor Springs Consolidated 45, and Sumpter East 44.

Depths of producing zones in the new wells drilled in 1961 range from a few hundred to about 5,350 feet. Average depth was probably a little more than 2,000 feet.

An important development in 1961 was the discovery in August of oil in Dutch Creek sand of Devonian age in Goldengate Consolidated pool in Wayne County. The discovery well is the Collins Bros. et al. #1 Wood "A" in sec. 32, T. 2 S., R. 9 E., Wayne County, an old dry hole drilled to a total depth of 3,317 feet in 1957. Collins Brothers et al. reopened the hole, deepened it to a total depth of 5,389 feet, and recompleted it as a flowing well with an initial production of 272 barrels of oil a day, through 1/8-inch choke, from the Dutch Creek, topped at 5,346 feet. By the end of the year, eight Dutch Creek oil wells had been completed in the pool. Initial production ranged from 70 barrels of oil a day pumping, to 1,032 barrels flowing. Average depth to the Dutch Creek pay zone is about 5,350 feet in the pool and average pay zone thickness is about 12 feet. As of December 20, the eight wells in the pool were

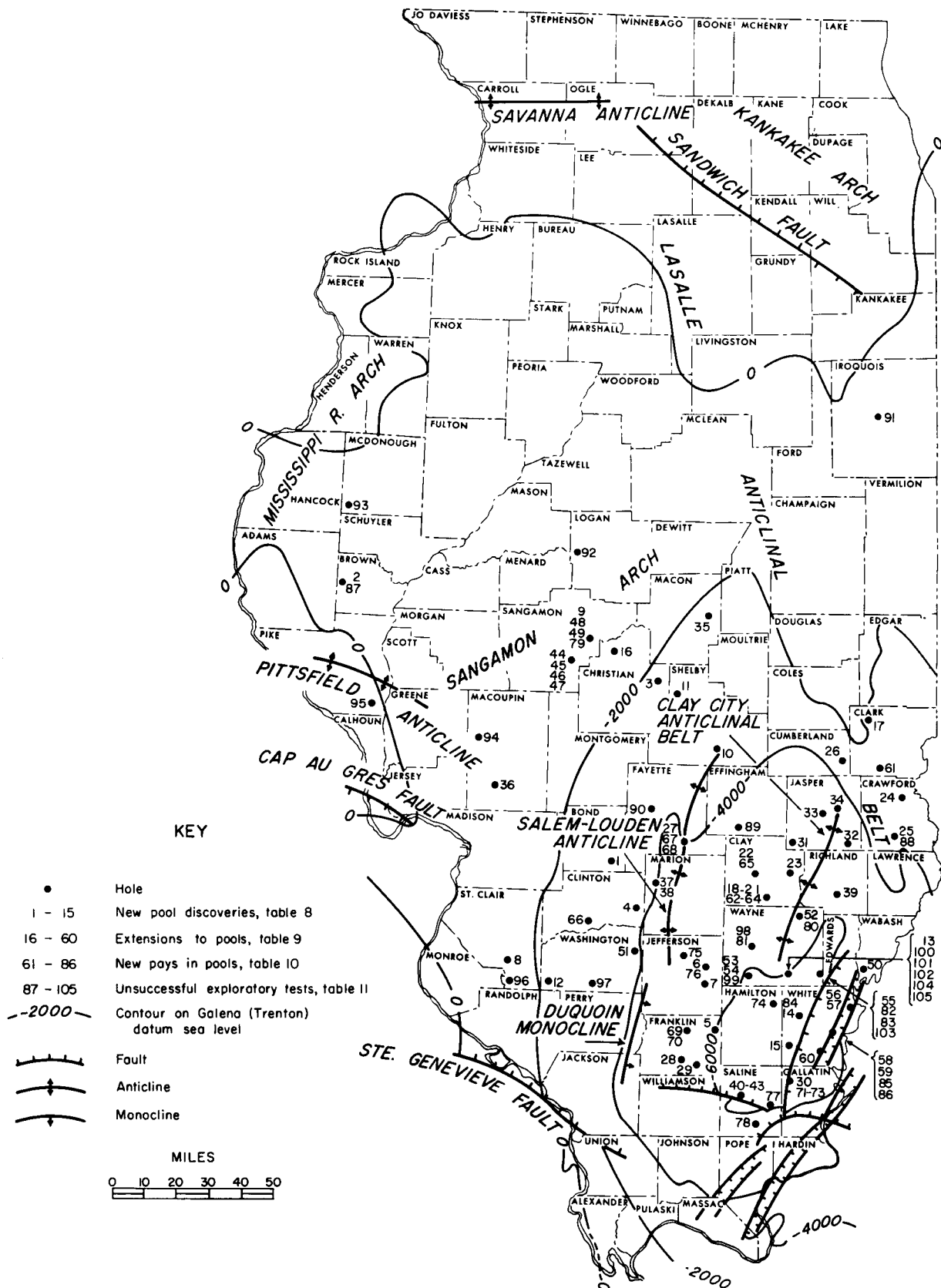


Fig. 2 — Major tectonic features of Illinois and their relations to significant holes drilled during 1961. Numbered holes shown are listed in tables 8, 9, 10, and 11.

flowing a total of about 2,200 barrels a day. This is the deepest production in the state. Dutch Creek production was first discovered in 1959 in Aden Consolidated pool in Wayne County.

A total of 22 Dutch Creek sand tests were drilled in 1961 in Wayne County and adjoining Hamilton County. Except for the producers in Goldengate Consolidated pool mentioned above, the wells were either completed as dry holes or plugged back and completed as oil wells in Mississippian strata. In addition to Goldengate Consolidated, pools that had Dutch Creek tests in 1961 are Bungay Consolidated in Hamilton County, and Aden Consolidated, Barnhill, Clay City Consolidated, Covington South, and Johnsonville Consolidated, all in Wayne County. The well in Johnsonville Consolidated, the Texaco Inc. #5 H. O. Fuhrer NCT-1, sec. 28, T. 1 S., R. 6 E., was drilled to a total depth of 6,460 feet and tested Trenton lime, topped at a depth of 6,348 feet. Dutch Creek sand was topped at 5,086 feet. The well was plugged back and completed as an oil well in St. Louis lime of Mississippian age—a new pay in the pool—for an initial production of 179 barrels of oil a day flowing. This is the deepest well drilled in 1961. For a selected list of unsuccessful deep tests see table 11.

One of the most successful pool development programs in 1961 was in Sumpter East pool in White County, about $2\frac{1}{2}$ miles west of the town of Crossville. Forty-four new Mississippian oil wells were completed in the pool during the year, with initial production ranging as high as 785 barrels of oil a day for one well. Sumpter East was discovered in 1951, and at the end of 1961 had cumulative production of about 1,220,000 barrels of oil. Production for the pool in 1961 was about 500,000 barrels.

Development of pools in the Christian-Sangamon County area progressed at a good rate, although there was a decline from the high activity of the previous three years when Christian County led all others in number of wells drilled for oil. Activity in the Adams-Brown County area also continued high but at a lower rate than in the immediately preceding years. One of the new pool discoveries, Buckhorn, is in Brown County. Drilling in these two areas may be expected to continue through 1962, with some wildcat drilling in the intervening area probable.

Other pools marked by high activity resulting in good oil wells in 1961 are Clay City West Consolidated in Clay and Wayne Counties, Eldorado Consolidated in Saline County, Omaha in

Gallatin County, and West Frankfort Consolidated in Franklin County.

POOL CONSOLIDATIONS

Three pools were consolidated with two other pools during 1961. Divide East and Divide West pools in Jefferson County were combined with Divide to form the Divide Consolidated pool. Stanford South, in Clay and Wayne Counties, was consolidated with Clay City West to form Clay City West Consolidated pool. Table 12 lists previous consolidations, giving original pool names and year of consolidation.

POOLS REVIVED OR ABANDONED DURING 1961

Five formerly abandoned pools, Calhoun South in Wayne County, Glenarm in Sangamon County, Louisville North in Clay County, Newton West in Jasper County, and Ritter in Richland County, were revived during 1961.

Nine pools that had a combined total of 33 wells and 320,000 barrels of oil production were abandoned during the year. They included Aden East in Wayne County, Assumption Central in Christian County, Dudleyville East in Bond County, Flora South in Clay County, New Memphis South in Clinton and Washington Counties, Pinkstaff East in Lawrence County, and Riffle, Sailor Springs Central, and Sailor Springs East, all in Clay County.

GEOLOGIC COLUMN

The geologic column (fig. 3) was prepared by David H. Swann of the Stratigraphy and Areal Geology Section of the Survey.

Figure 3 does not show the Pleistocene deposits that cover much of the Illinois bedrock, the Tertiary and Cretaceous rocks that occur only in a belt across the southern end of the state, or the approximately 4,000 feet of Ordovician and Cambrian rocks between the base of the St. Peter Sandstone and the top of the Precambrian basement.

All pay zones listed in tables 18 and 19 are shown on the geologic columns, where their positions are indicated by dots.

OIL PRODUCING STRATA OF ILLINOIS (See figure 3.)

About 17 percent of the total oil production in Illinois has come from sandstones of Pennsylvanian age, with all but an insignificantly small

TABLE 10 - DISCOVERY WELLS OF TWENTY-SIX NEW PAYS IN POOLS IN 1961
C, Consolidated; N, North; S, South; W, West;

Map no.	General location	Operator, well no., and farm	Pool	Initial production	Pay zone	Top of pay zone	Total depth feet	Completion date	Remarks
61	CLARK 35-9N-14W	Baughman, Osborne & Carrier #1 Sellars-Arrowhead	Johnson S	11 BO	Aux Vases	716	742	9-27	
62	CLAY 2-2N-7E	Southern Ill. Oil Prod. #1 Bissey Heirs	Clay City WC	30 BO	St. Louis	3,169	3,200	7-26	
63	17-2N-7E	Black & Black Oil #1 H. C. Skelton	Clay City WC	25 BO	Spar Mtn	3,106	3,200	8-16	Extension to pool
64	17-2N-7E	W. S. Davis #1 O. Williams	Clay City WC	90 BO	Ohara	3,082	3,188	10-25	
65	9-4N-6E	J. L. McManamy #1 Zuroweste	Louisville N	15 BO/2 BW	Spar Mtn	2,812	2,845	11-8	Extension to pool
66	CLINTON 19-1N-3W	R. E. Hollenkamp #1-A. A. B. Loepker	Bartelso W	18 BO	Silurian	2,439	2,600	11-22	
67	FAYETTE 13-5N-2E	W. L. Belden #2 J. Gehle	Wilberton	66 BO/20 BW	Carper	3,203	3,476	9-6	Also produces from Lingle
68	25-6N-2E	L. E. Ostrom #1-A Smail	St. James	130 BO/30 BW	Carper	3,082	3,137	12-20	
69	FRANKLIN 19-5S-3E	H. C. Whittington #2 Boyles Heirs	Whittington	35 BO	Paint Creek	2,615	2,881	5-17	
70	16-5S-4E	Leo Horton #1 Webb Heirs	Taylor Hill	8 BO	Harrodsburg	3,930	3,970	1-18	OWWO, was D&A, OTD 3,176
71	GALLATIN 32-7S-8E	Nation Oil Co. #2 Murphy	Omaha	130 BO	McClosky	2,794	2,800	5-10	Also produces from Ohara
72	32-7S-8E	Southern Ill. Oil Prod. #1-A L. Ri	Omaha	56 BO	Paint Creek	30	4,301	7-25	Also produces from A V

OIL AND GAS DEVELOPMENTS

73	GALLATIN (cont.) 5-8S-8E	R. C. Davoust #4 Delahunt	Omaha	84 BO	Hardinsburg	2,179	2,826	7-26	
74	HAMILTON 24-3S-7E	E. Savage #1 Rister et al.	Mill Shoals	18 BO/165 BW	Salem	3,970	4,323	11-1	Also produces from Spar Mtn
75	JEFFERSON 21-1S-3E	D. F. Herley #1 C. Mullinax Heirs	Reservoir	20 BO/100 BW	Salem	3,034	3,093	10-24	
76	14-1S-4E	Burkett Oil Prop. #1 Holloway	Coil W	14 BO/14 BW	Salem	3,346	3,389	9-27	
77	SALINE 27-8S-7E	G. L. Reasor #1 Bertino	Grayson	25 BO/70 BW	Aux Vases	2,913	3,045	11-1	OWMO, was D&A, OTD 3,045
78	25-9S-6E	Van Buskirk #1 V. E. Hall et al.	Pankeyville	1 BO	Aux Vases	2,511	2,552	5-24	OWMO, was D&A, OTD 2,552
79	SANGAMON 12-15N-3W	Dwight Beckham #1 J. George	Roby	4 BO/100 BW	Burlington- Keokuk	1,336	1,905	8-9	OWMO, was D&A, OTD 1,905 Ext. to pool
80	WAYNE 36-2N-9E	Alco Oil & Gas Co. #1 Barker	Calhoun S	145 BO/180 BW	McClosky	3,208	3,320	10-11	
81	28-1S-6E	Texaco Inc. #5 H. O. Fuhrer NCT-1	Johnsonville C	179 BO	St. Louis	3,256	6,460	6-28	
82	29-2S-9E	T. G. Jenkins #1 T. G. Jenkins	Goldengate C	40 BO	Harrodsburg	4,121	4,135	11-8	OWMO, was D&A, OTD 3,380
83	32-2S-9E	Collins Bros. #1 Wood "A"	Goldengate C	272 BO	Dutch Creek	5,346	5,389	8-16	OWMO, was D&A, OTD 3,317
84	WHITE 24-4S-8E	Shulman Bros. #2 Stocke Heirs	Trumbull N	100 BO	McClosky	3,466	3,496	6-28	
85	10-5S-10E	J. H. Murphy #1 G. Rudolph	Phillipstown S	10 BO/20 BW	Spar Mtn	3,083	3,091	8-23	Extension to pool
86	11-5S-10E	Slagter Prod. Corp. #1 D. Brown	Phillipstown C	15 BO	Kinkaid	1,954	2,400	8-2	Extension to pool

TABLE 11 - SELECTED LIST OF NINETEEN UNSUCCESSFUL EXPLORATORY TESTS IN 1961

C, Consolidated; S, South; W, West
 WN, Wildcat near, well drilled $\frac{1}{2}$ to 2 miles from nearest producer
 WF, Wildcat far, well drilled 2 or more miles from nearest producer

Map no.	General location	Operator well no., and farm	Pool or wildcat	Producer or D&A	Deepest formation tested	Depth to top	Total depth	Comp date	Remarks
87	BROWN 26-2S-4W	Buck & Bock #1 C. Orr	WF	D&A	Oneota	1,520	1,608	12-20	OMDD, was D&A, OTD 1,416'
88	CRAWFORD 3-5N-12W	Drake & Dome #1 E. Maxwell et al.	Main C	Producer	Trenton	4,280	4,598	1-4	Produces from St. Louis
89	EFFINGHAM 14-6N-5E	Dale Hopkins #1 Martin Sinkler Comm.	WN Iola C	D&A	Geneva	4,054	4,085	2-22	OWMO, was D&A, OTD 2,674'. Was Kingwood #1 Martin
90	FAYETTE 32-7N-1E	Harry Mobry #1 Capps	WF	D&A	Silurian	3,065	3,070	8-16	
91	IROQUOIS 11-26N-13W	Vickery Drlg. Co. #1 J. Taden	WF	D&A	Mt. Simon	3,270	3,450	11-1	Gas Storage test well
92	LOGAN 12-19N-4W	V.S. & S. Drlg. Co. #1 Doyle-Pottorf Comm.	WF	D&A	Trenton	1,862	1,965	3-1	
93	MCDONOUGH 19-4N-4W	A. M. Scroggin #1 Sherman et al.	Colmar- Plymouth	D&A	Shakopee	1,045	1,095	3-29	
94	MACOUPIN 11-11N-9W	Carline Wilson #1 Redfern	WF	D&A	Trenton	1,584	1,637	8-16	
95	PIKE 19-7S-2W	Arnold Beach #1 Crater	WF	D&A	Trenton	645	700	6-7	
96	ST. CLAIR 21-3S-7W	Joe A. Dull #1 T. Berthold	WN Marissa W.	D&A	Trenton	1,741	1,791	12-13	

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97	WASHINGTON 23-3S-3W	L. V. Horton #1 F. Sharkowski	Cordes	D&A	Trenton	3,241	3,880	9-13	OWWO, was D&A, OTD 2,887'
98	WAYNE 28-1S-6E	Texaco Inc. #5 H. O. Fuhrer NCT-1	Johnsonville C	Producer	Trenton	6,348	6,460	6-28	Produces from St. Louis a new pay in the pool
99	14-2S-6E	Peake Pet. Co. #1 Henson	Covington S	Temp. abd.	Dutch Creek	5,273	5,280	9-6	
100	17-2S-8E	Collins Bros. #1 Puckett	Clay City C	Producer	Dutch Creek	5,334	5,377	10-4	OWDD, was D&A, OTD 3,340'. Was Ashland Oil & Refg. Co. #1 Puckett. Produces from Salem
101	25-2S-8E	Kaemmerer-Wier #1 J. P. Lewis et al.	WN Goldengate C	D&A	Dutch Creek	5,463	5,500	11-8	
102	27-2S-8E	J. H. Miskell #C-1 G. T. Caldwell	Barnhill	D&A	Dutch Creek	5,482	5,500	2-8	
103	29-2S-9E	Perry Fulk #1 Bacon Comm.	Goldengate C	D&A	Dutch Creek	5,485	5,522	11-28	
104	10-3S-7E	Robinson Prod., Inc. #1 J. & L. Cox	WN Aden C	D&A	Dutch Creek	5,442	5,475	11-22	
105	15-3S-7E	Olin D. Sharp #1 D. J. Morris et al.	Aden C	D&A	Dutch Creek	5,427	5,434	2-22	

TABLE 12 - POOLS INCORPORATED INTO OTHER POOLS BY CONSOLIDATION
C, Consolidated

Original pool name; first consolidation	Present pool assignment	Date of first con- sol.	Original pool name; first consolidation	Present pool assignment	Date of first con- sol.
Aden N	Aden C	1944	Dubois W	Dubois C	1955
Albion N	Albion C	1944	Dundas C	Clay City C	1948
Allison-Weger	Main C	1955	Dundas E	Olney C	1958
Assumption N	Assumption C	1953	Eldorado Central	Eldorado C	1954
Barnhill E	Goldengate C	1944	Eldorado N	Eldorado C	1955
Bend	New Harmony C	1952	Ellery C	Goldengate C	1958
Bennington	Maple Grove C	1952	Ellery W; Ellery C	Goldengate C	1952
Bible Grove C	Sailor Springs C	1949	Enterprise	Clay City C	1941
Bible Grove E; Bible Grove C	Sailor Springs C	1948	Enterprise W	Clay City C	1941
Birds	Main C	1955	Epworth C	Storms C	1957
Blairsville	Bungay C	1951	Epworth E; Epworth C	Storms C	1951
Bone Gap S	Bone Gap C	1952	Fairfield	Clay City C	1953
Bonpas	Parkersburg C	1951	Fairfield E	Clay City C	1953
Bonpas W	Parkersburg C	1944	Flannigan	Dale C	1955
Boos; Dundas C	Clay City C	1941	Flat Rock	Main C	1954
Boos E; Willow Hill C	Clay City C	1947	Flora	Sailor Springs C	1955
Boos N	Clay City C	1948	Friendsville	New Harmony C	1949
Bourbon N	Bourbon C	1958	Friendsville S	New Harmony C	1949
Boyleston C	Clay City C	1948	Gallagher	Calhoun C	1946
Brownsville; Stokes- Brownsville	Roland C	1946	Gards Point N	Gards Point C	1957
Burnt Prairie; Leach Twp Calvin	Goldengate C New Harmony C and Phillips- town C	1947 1941	Geff	Clay City C	1947
Calvin N	Phillipstown C	1948	Geff W	Clay City C	1948
Cantrell C	Dale C	1955	Goldengate W	Goldengate N C	1953
Cantrell N	Dale C	1956	Gossett	Roland C	1954
Cantrell S; Cantrell C	Dale C	1953	Grayville	Phillipstown C	1948
Chapman	Main C	1954	Grayville W	Albion C	1949
Christopher C	Sesser C	1958	Griffin	New Harmony C	1941
Cisne	Clay City C	1948	Helena	Ruark W C	1952
Cisne N	Clay City C	1954	Herald E; Concord S C	Herald C	1953
Clay City N	Clay City C	1954	Herald N	Storms C	1953
Concord Central; Concord S C	Herald C	1952	Hoodville	Dale C	1943
Concord N	Concord C	1955	Hoosier; Bible Grove C	Sailor Springs C	1948
Concord S C	Herald C	1955	Hoosier N; Bible Grove C	Sailor Springs C	1948
Cooks Mills E	Cooks Mills C	1956	Hunt City S	Clay City C	1959
Cooks Mills Gas	Cooks Mills C	1955	Ingraham W; Bible Grove C	Sailor Springs C	1948
Cooks Mills N	Cooks Mills C	1955	Inman	Inman W C	1950
Cottonwood	Herald C	1953	Inman Central	Inman W C	1949
Cottonwood N	Herald C	1953	Inman N	Inman W C	1949
Covington; Boyleston C	Clay City C	1944	Inman S	Inman W C	1950
Covington E	Clay City C	1948	Iron C	Roland C	1954
Cowling	New Harmony C	1947	Junction City S	Junction City C	1958
Dead River	New Haven C	1950	Keensburg C	New Harmony C	1948
Divide E	Divide C	1961	Kincaid S	Kincaid C	1958
Divide W	Divide C	1961	Lancaster N	Ruark W C	1952
Dix	Salem C	1954	Lancaster W	Berryville C	1949
			Leech C	Goldengate C	1948
			Maple Grove E	Parkersburg C	1952
			Mason	Iola C	1956
			Mason S	Iola C	1948
			Maud Central; Maud N C	New Harmony C	1949
			Maud C	New Harmony C	1951

TABLE 12 - Continued

Original pool name; first consolidation	Present pool assignment	Date of first con- sol.	Original pool name; first consolidation	Present pool assignment	Date of first con- sol.
Maud N C	New Harmony C	1951	Rural Hill	Dale C	1951
Maud W; Maud N C	New Harmony C	1948	Rural Hill W	Dale C	1955
Maunie	Maunie S C	1948	Sailor Springs S	Sailor Springs C	1942
Maunie W	Maunie N C	1955	Sailor Springs W	Sailor Springs C	1949
Merriam	Clay City C	1953	Schnell S	Clay City C	1959
Mitchell; Ellery C	Goldengate C	1952	Shelbyville E	Shelbyville C	1956
Mt. Auburn Central	Mt. Auburn C	1954	Sims	Johnsonville C	1948
Mt. Auburn E	Mt. Auburn C	1954	Sims N	Johnsonville C	1945
Mt. Carmel W	New Harmony C	1948	Sorento S	Sorento C	1956
Mt. Erie	Clay City C	1944	Springerton	Bungay C	1946
Mt. Erie S	Clay City C	1948	Stanford	Clay City C and	
New Haven N	Concord E C	1950		Sailor Springs C	1953
New Haven W	Inman E C	1949	Stanford S	Clay City W C	1961
New Hebron	Main C	1955	Stanford W	Sailor Springs C	1953
Noble	Clay City C	1948	Stokes-Brownsville; Iron C	Roland C	1953
Noble N	Clay City C	1948	Swearingen Gas	Main C	1955
Noble S	Clay City C	1948	Toliver	Hord S C	1955
Norris City	Roland C	1955	Trumbull W	Trumbull C	1959
North City; Christopher C	Sesser C	1954	West End	Dale C	1955
Olney E	Olney C	1949	West Frankfort S	West Frankfort C	1948
Parker	Main C	1954	West Liberty; Dundas C	Clay City C	1941
Parkersburg N	Parkersburg C	1951	Williams S	Williams C	1953
Patton	Allendale C	1948	Willow Hill C	Clay City C	1948
Patton W	Allendale C	1948	Willow Hill N; Willow		
Roundprairie	Johnsonville C	1941	Hill C	Clay City C	1947
			Woburn S	Woburn C	1950

amount of this from the three lower formations, the Spoon, Abbott, and Caseyville. Probably little oil originated in the Pennsylvanian; it probably migrated from the underlying Mississippian formations, either directly through the Pennsylvanian-Mississippian unconformity or along fault planes.

About seven percent of all Illinois oil has come from isolated sand bodies lying at or within a very few feet of the basal unconformity. These basal Pennsylvanian sands are the Biehl, Jordan, Buchanan, Partlow, most of the Casey, the lower Siggins, the lower Dudley, and the Pottsville. They differ from each other somewhat in age because Pennsylvanian sedimentation began earlier in the south than farther north.

About a tenth of the state's oil has come from sands such as Bridgeport and Robinson that lie near the Abbott-Spoon boundary. The major accumulations of oil are in sand bodies six to seven hundred feet above the base of the Pennsylvanian in the south but are closer to the base in the north. These higher occurrences generally are found at localities where there was insufficient

shale to seal oil in the basal sandstone lenses.

Slightly more than half of the total production, and about two-thirds of current production, comes from sandstones of late Valmeyeran and Chesterian age. The higher sandstones, the Degonia, Clore, and Palestine, have produced very little oil, all of it in the region of the lower Wabash Valley. Sandstones near the middle part of this sequence, the Waltersburg, Tar Springs, and Hardinsburg, are more productive, with some very prolific pools, but significant accumulations are confined to the southern and eastern oil counties.

The sandstones in the lower part of this sequence are productive nearly throughout the oil country. This is particularly true of the Cypress, which is the most important single oil pay zone in the state. The Sample is the uppermost of two or three sandstones that generally have been called Paint Creek. Sample sand is relatively unimportant in Illinois, but produces more oil in Indiana and Kentucky. The Bethel and the lower and older Benoist, or Yankeetown, sand often

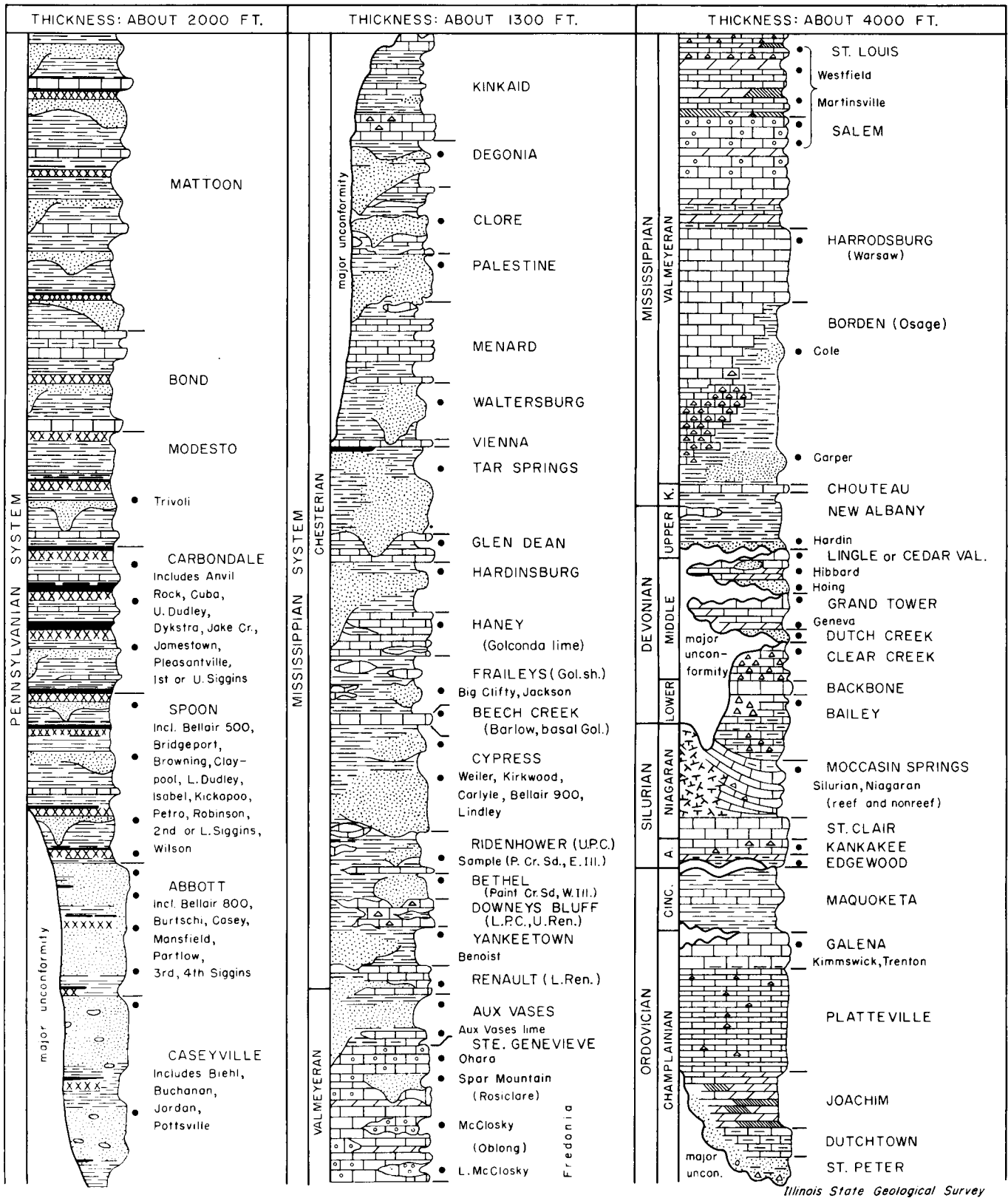


Fig. 3 — Generalized geologic column of southern Illinois. Black dots indicate oil and gas pay zones. Formation names are capitalized; other pay zones are not. About 4,000 feet of lower Ordovician and upper Cambrian rocks under the St. Peter are not shown. Kinderhookian (K), Alexandrian (A), and Cincinnati (Cinc.) Series are abbreviated. Variable vertical scale.

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have been confused. The Bethel is well developed in the eastern part of the state; in the west, where it generally is called the Paint Creek sand, it is less well developed. The Benoist, on the other hand, is largely confined to the western part of the state and its eastern representative often has been called Renault. The Aux Vases is the most important producer in the deepest part of the basin. There it is very fine grained and has a high connate water content, making it difficult to recognize as an oil pay either in electric logs or in cuttings. This phase of the Aux Vases crops out at Rosiclare in southeasternmost Illinois, where it was named the Rosiclare Sandstone Member. Unfortunately, this name has been mistakenly applied in the basin to an older and somewhat coarser sand. To this older sandstone, the "Rosiclare" of most oil reports, we now apply the name Spar Mountain. It is moderately productive, particularly at the northern edge of the oil country.

The McClosky pay zones in the Ste. Genevieve Limestone beneath the Spar Mountain Sandstone Member have been among the most prolific in the state and probably have produced nearly a fifth of the state's oil. These are oolitic limestone lenses and are quite similar to other oolitic pays at the Spar Mountain position, to the Ohara zone between the Spar Mountain and the Aux Vases, and to oolitic pay zones in the St. Louis and Salem Formations below. Production decline is quite rapid in the oolitic reservoirs and they are currently providing a much smaller proportion of the annual production. A minor amount of production comes from the Harrodsburg (Warsaw), a coarse, light colored, fossiliferous limestone four to five hundred feet below the top of the Salem. To date Harrodsburg production has been found only in the deepest part of the basin. Minor amounts of production have come from the Carper, a moderately thick but very dirty sand pay, low in the Mississippian in the northeastern fringe of the basin.

About a twentieth of the state's production has come from Devonian rocks, but the current proportion is much less. Production is from sandstones, limestones, dolomites, and cherts. Attention in recent years has been focused on the Dutch Creek sand in the deep part of the basin. Oil was discovered in this zone in 1959 in Aden Consolidated pool, Wayne County. Other successes have followed, notably in Goldengate Consolidated pool, also in Wayne County. The Dutch Creek pay zone is about 12 feet thick and

5,350 feet deep, the deepest production in Illinois.

Silurian rocks have produced nearly one percent of the state's oil and are currently producing at a somewhat higher rate. In the southwestern part of the state, Silurian production is from large, isolated coral reefs. These reefs, formed of fossils, are compact limestone of low porosity, but they are quite thick and contain scattered vugs and extensive fracture systems that constitute the reservoirs. In the northern part of the basin, where pre-New Albany erosion has removed the Devonian rocks, Silurian production comes from bedded nonreef dolomite of fair porosity but generally rather low permeability.

Somewhat less than one percent of the Illinois total oil production, and much less than one percent of its current production, comes from the Trenton pay zone in the Galena Limestone of Ordovician age. Production is confined to relatively large anticlines or domes on the northeastern and western flanks of the basin, and comes from partially dolomitized limestone of low to moderate porosity.

To date, no commercial production has been discovered in Illinois in rocks beneath the Trenton.

CRUDE OIL RESERVES

Proved crude oil reserves in Illinois were reduced by 44.2 million barrels during 1961 and totaled 520.6 million barrels on January 1, 1962 (table 13).

TABLE 13 - CHANGES IN ESTIMATED CRUDE OIL RESERVES, 1961

	Millions of bbls
Estimated reserves, January 1, 1961	564.8
Withdrawal by 1961 production	77.4
	<u>487.4</u>
Added by new drilling in 1961	19.0
	<u>506.4</u>
Added by upward revision	14.2
Estimated reserves, January 1, 1962	<u>520.6</u>

Production during the year was maintained at the same level as in previous years, but additional reserves found by new drilling and new waterflood projects were less than half that of the oil produced, 33.2 million barrels of total new reserves compared to 77.4 million barrels of oil produced.

PRODUCTIVE ACREAGE

Proved productive acreage in Illinois increased by 12,850 acres in 1961 as the result of the completion of 1,103 new oil and gas wells. The 1,085 holes completed as oil wells added 12,670 acres. This, together with an upward adjustment of 4,950 acres for oil wells not included in the figures for previous years, makes a total of 602,665 acres. Gas acreage increased to 31,635 as the 18 wells completed added 180 acres.

The present spacing pattern in Illinois for wells less than 4,000 feet deep is 10 acres for each well producing from sandstone and 20 acres for each well producing from limestone. A 40-acre spacing pattern is established for producers between depths of 4,000 and 6,000 feet; a 160-acre spacing pattern is required for wells that are drilled below 6,000 feet. No wells in Illinois have thus far been completed in producing zones below 6,000 feet.

GEOPHYSICAL AND CORE DRILLING TESTS

No gravity meter, seismograph, or magnetometer crews were reported to have worked in Illinois during 1961. As indicated in table 14, core drilling crews were quite active, most of the testing being done in connection with the underground storage of natural gas.

TABLE 14 - CORE DRILLING IN ILLINOIS, 1961

Month	Crews	Month	Crews
Jan.	5(4)*	July	6(5)
Feb.	3(3)	Aug.	9(5)
Mar.	5(5)	Sept.	8(4)
Apr.	8(7)	Oct.	5(3)
May	9(7)	Nov.	6(6)
June	7(5)	Dec.	7(6)

* Figures in parentheses refer to number of crews, included in total, that worked on gas storage projects.

GAS AND GAS PRODUCTS

An estimated 27 billion cubic feet of gas was produced from Illinois wells during 1961, either as solution gas or in separate gas reservoirs in the oil areas.

Approximately 834.0 million cubic feet of Illinois gas was marketed in Illinois during the

year not including native gas from Cooks Mills, Freeburg, and Tilden N storage fields (table 15). About 600 million cubic feet of this was dry gas obtained from gas wells and the remainder was gas collected from oil wells. Seven million cubic feet was distributed in Carmi, 38 million cubic feet in Centralia and Mt. Vernon, about 19 million cubic feet was sold to the Ohio Oil Company Refinery at Robinson, and the rest went to pipeline outlets for distribution away from the producing areas.

During 1961, 2,384 million cubic feet of dry or solution gas from Illinois oil wells was processed by the two principal operating companies, with the resultant production of 21,460,000 gallons of natural gasoline and allied products. These figures do not include data from the one plant in Illinois that processes gas from outside the state and returns the dry residue gas to the pipeline.

It is estimated that, in addition to the 2,384 million cubic feet of metered solution gas processed, about 10 billion cubic feet was flared during the year and an approximately equal amount used to maintain lease operations.

TABLE 15 - GAS PRODUCED IN ILLINOIS AND MARKETED IN 1961*

Field, County	Market	Amount Used (cu ft)
Herald Consolidated, White-Gallatin	Carmi	7,287,000
Richwood, Crawford	Pipeline	8,605,000
Eldorado Consolidated, Saline	Pipeline	560,472,000
Eldorado East, Saline	Pipeline	70,522,000
Harco, Harco East, and Raleigh South, Saline	Pipeline	130,165,000
Wamac East, Marion	Centralia and Mt. Vernon	38,485,000
Robinson, Crawford	Ohio Oil Company Refinery	18,861,000
	Total	834,397,000

* Not including storage areas

TABLE 16 - ESTIMATED CAPACITIES OF OPERATING GAS STORAGE PROJECTS IN ILLINOIS

January 1, 1962

Company	Project and Location	Working gas capacity (Mcf)	Cushion gas (Mcf)	Total (Mcf)
Natural Gas Storage of Ill.	Herscher, Galesville, Kankakee County	45,000,000	45,000,000	90,000,000
Natural Gas Storage of Ill.	Herscher, Mt. Simon, Kankakee County	39,000,000	28,000,000	67,000,000
N. Ill. Gas	Troy Grove, LaSalle County	12,000,000	8,000,000	20,000,000
Natural Gas Storage of Ill.	Cooks Mills, Coles County	1,004,000	984,000	1,988,000
Ill. Power	Gillespie, Macoupin County	31,000	115,000	146,000
Ill. Power	Freeburg, St. Clair County	1,810,000	4,590,000	6,400,000
Ill. Power	N. Tilden, St. Clair, Washington Counties	812,500	1,466,500	2,279,000
Panhandle	Waverly, Morgan County	2,000,000	6,500,000	8,500,000
Miss. River Fuel	Waterloo, Monroe County	118,000	100,000	218,000

UNDERGROUND STORAGE OF NATURAL GAS

The number of operating underground gas storages in Illinois increased from seven in 1960 to nine in 1961, and table 16 shows estimated capacities of operating underground gas storages in Illinois as of January 1, 1962. The data were furnished by the operating companies.

Underground storage facilities located near points of consumption allow excess gas to be stored when demand is low and to be withdrawn

from storage to supplement the direct pipeline flow when demand is high.

Because underground storage of gas has proved successful, it is likely that additional areas of gas storage will be added during 1962 and that the total underground storage capacity will increase year by year.

One gas storage area proposed by the Northern Illinois Gas Company, the Crescent City area in Iroquois County, has been in the planning

TABLE 17 - UNDERGROUND STORAGE FACILITIES FOR LPG IN ILLINOIS, JANUARY 1, 1962

Company	Location	Type of storage	Capacity* (bbls)
Phillips Petroleum	Kankakee, Kankakee County	Mined shale	260,000
Shell Oil	Wood River, Madison County	Mined limestone	520,000
	Wood River, Madison County	Mined limestone	265,000
Tuloma Gas Products	Wood River, Madison County	Mined limestone	230,000
U. S. Industrial Chemicals	Tuscola, Douglas County	Mined shale	170,000
Warren Petroleum	Eola (Aurora), Kane County	Mined shale	46,400
	Crossville, White County	Mined shale	52,000

* From the Oil and Gas Journal, October 16, 1961.

stage for about two years. (See Illinois State Geological Survey Circular 318, p. 15-16.) Hearings and rehearings on the proposed storage area were held before the Illinois Commerce Commission in 1961.

UNDERGROUND STORAGE OF LIQUEFIED PETROLEUM GAS

Liquefied petroleum gas is being stored in seven underground caverns, mined for the purpose, in Illinois.

The first storage cavern for liquefied petroleum gas in Illinois was constructed at Kankakee. The Phillips Petroleum Company investigated conditions in the Kankakee area in 1951 and 1952 and consulted with the staff of the Illinois State Geological Survey. The shaft and tunnels were completed early in 1953, and storage of liquid propane began in March 1953. Since then underground storages for liquid petroleum gases have been completed at Wood River (3), Tuscola, Eola (Aurora), and Crossville. In addition to propane, butane and propylene are being stored. The total combined capacity of the seven storages is about 1,543,000 barrels.

Illinois State Geological Survey Reprint Series 1956-H discusses geological conditions relating to this type of storage, describes briefly four storage projects in Illinois, and summarizes the possibilities of storing liquefied gases in abandoned coal mines, clay pits, metal mines, quarries, and caves.

Table 17 gives details of liquefied petroleum gas underground storage in operation in Illinois.

OIL AND GAS POOL MAP

Pool locations, along with secondary recovery projects numbered to agree with project numbers in Part II, appear on plate I (in pocket).

OIL AND GAS POOL STATISTICS

Oil pool statistics are given in table 18. Pools that now are, or previously have been, subjected to secondary recovery, are indicated in the table by a solid dot to the left of the pool name. Gas pool statistics appear in table 19.

Both tables list pools alphabetically and give their locations. Where pools have wells in more than one county, the county names are arranged in order of date of discovery, rather than alphabetically.

Abandoned pools are included in these tables, but pools consolidated into other pools are listed in table 12.

The tables include acreage figures, cumulative and 1961 figures on production, drilling statistics, information on pay zones, oil gravity, sulfur content, pay zone characteristics and depths in the various pools, structural or stratigraphic conditions responsible for oil accumulations, and the deepest zone tested to date in each pool.

SUPPLEMENTAL REFERENCES
FOR PART I

- Illinois State Geological Survey Circular 318. Underground Storage of Natural Gas in Illinois (1961).
- Illinois State Geological Survey Illinois Petroleum 75. Petroleum Industry in Illinois, 1960 (1961).
- Illinois State Geological Survey. Map of the Oil and Gas Industry in Illinois (January 1, 1961).
- Illinois State Geological Survey Reprint Series 1956-H. Underground Storage of Liquid Petroleum Hydrocarbons in Illinois (1956).
- Oil and Gas Journal. LPG Storage Capacity Leaps 25%; v. 59, no. 42.

TABLE 18 — ILLINOIS OIL POOL STATISTICS, 1961

Pools located in two or more counties have county names listed in order of oil discovery.

EXPLANATION OF ABBREVIATIONS

Pool: N, North; S, South; E, East; W, West; C, Consolidated; Cen, Central.

Age: Pc, Precambrian; Cam, Cambrian; Ord, Ordovician; St. P., St. Peter; Trn, Trenton; Sil, Silurian; Dev, Devonian; Mis, Mississippian; Pen, Pennsylvanian; Shak, Shakopee.

Kind of rock in pay zone: D, dolomite; DS, sandy dolomite; L, limestone; LS, sandy limestone; OL, oolitic limestone; S, sandstone.

• Secondary recovery project listed in Part II.

Abd: Pool abandoned.

Rev: Pool revived.

Structure: A, anticline; C, accumulation due to change in character of rock; D, dome; F, faulting an important factor in oil accumulation; G, faulting a minor factor in oil accumulation; H, strata horizontal or nearly horizontal; L, lens; M, monocline; N, nose; R, reef; T, terrace; U, unconformity; X, structure not determined.

Combinations of the above letters are used where more than one factor applies.

x - Correct figure not determinable

Pool; county; location by township and range (*Secondary recovery—see Part II)	Pay zone Name, age, and depth in feet	Year of discovery	Area proved in acres	Oil production M bbls		Number of wells			Character of oil		Pay zone Kind of rock, av. thickness in feet, Structure	Deepest test Zone and depth (ft)		
				During 1961	To end of 1961	Completed in 1961	Abandoned in 1961	Producing end of year	Gr. API (%)	Sulfur (%)				
Ab Lake; Gallatin; 8S; 10E	Pennsylvanian 805	1947	120	6	55	9	0	0	0	3	x	M	Mis 2,953	
	Palestine, Mis 1,835	1957	30	x	x	3	0	0	0	0	x	S 10	M	
	Waltersburg, Mis 2,000	1957	10	x	x	1	0	0	0	0	x	S 5	MF	
	Renault, Mis 2,735		30	0	0	3	0	0	0	0	x	S 10	M	
	Aux Vases, Mis* 2,770		40	0	0	2	0	0	0	0	35	L 8	MF	
			40	0	0	4	0	0	0	0	35	S 9	MF	
Ab Lake S; Gallatin; 9S; 10E	Aux Vases, Mis 2,798	1959	10	0.5	4	1	0	0	0	1	x	S 6	M	Mis 2,982
Ab Lake W; Gallatin; 8-9S; 9-10E	Pennsylvanian 725	1950	340	80	315	28	1	1	1	19	x	S 10	M	Mis 2,964
	Waltersburg, Mis 2,020		20	0	0	2	1	0	0	0	x	S 20	ML	
	Tar Springs, Mis 2,075	1958	20	x	x	14	1	0	0	0	x	S 10	ML	
	Cypress, Mis* 2,425		10	x	x	2	0	1	0	0	x	S 9	ML	
	Aux Vases, Mis 2,735		170	x	x	1	0	0	0	0	x	S 6	ML	
	McClosky, Mis 2,830		20	0	3	17	0	1	0	0	x	L 2	MC	
	2 or more pays					4	0	0	0	0	x			
Ab Lake C; Wayne, Hamilton; 2-3S; 7E	Aux Vases, Mis 3,200	1938	2,600	279	9,305	119	0	1	1	94	x	S 10	A	Dev 5,434
	Ohara, Mis* 3,290		1,350	x	x	60	0	0	0	0	35	L 7	A	
	Spar Mtn, Mis 3,320		100	x	x	7	0	0	0	0	35	L 5	AC	
	McClosky, Mis 3,350		2,360	x	x	75	0	0	0	0	35	L 4	A	
	Salem, Mis 3,735		160	x	x	8	0	1	0	1	40	L 16	AC	
	Harrodsburg, Mis 4,132	1959	80	x	x	2	0	0	0	0	x	L 16	AC	
	Dutch Creek, Dev 5,318	1959	120	x	x	3	0	0	0	0	x	S 20	A	
	2 or more pays					47	0	0	0	0				
Ab Lake E; Wayne; 2S; 7E	McClosky, Mis 3,434	1961	20	Abd 1961	0	1	1	1	0	0	x	OL 6	X	Mis 3,552
Ab Lake S; Hamilton; 3S; 7E	Aux Vases, Mis 3,245	1945	440	17	627	24	0	0	0	17	x	S 8	A	Dev 5,462
	Ohara, Mis 3,310		40	x	x	6	0	0	0	0	x	L 7	AC	
	Spar Mtn, Mis 3,330		160	x	x	2	0	0	0	0	x	L 8	AC	
	McClosky, Mis 3,395		360	x	x	16	0	0	0	39	x	L 9	AC	
	2 or more pays					9	0	0	0	0				

TABLE 18 — ILLINOIS OIL POOL STATISTICS, 1961 — Continued

Pool; county; location by township and range (*Secondary recovery—see Part II)	Pay zone Name, age, and depth in feet	Year of discovery	Area proved in acres	Oil production		Number of wells			Character of oil		Pay zone Kind of rock, av. thickness in feet, Structure	Deepest test Zone and depth (ft)	
				During 1961	To end of 1961	Completed to end of 1961	Abandoned in 1961	Producing end of year	Gr. API (%)	Sulfur (%)			
													M bbls
Allendale (cont.)	Sample, Mis Bethel, Mis Aux Vases, Mis Ohara, Mis Spar Mtn, Mis McClosky, Mis 2 or more pays	X 2,010 2,280 2,300 2,300 2,300 2,300	X X X X X X	X X X X X X	X X X X X X	10 88 3 10 3 19 14	0 3 0 0 0 1 0	0 X X X X X X	X 37 X X X 37	S S S L LS L	AM AM AM AM AM AM		
Alma; Marion; 4N; 2E	Cypress, Mis* Benoist, Mis Spar Mtn, Mis	1,805 1,945 2,085	70 60 40	0 0 X	82 X X	6 1 6 2	0 0 0 0	0 X X X	X X 36 36	S S L L	A AL AL AC	Dev 3,692	
Amity; Richland; 4N; 14W	McClosky, Mis	2,960	160	2	34	4	0	0	1	X	OL	MC Mis 3,089	
Amity S; Richland; 4N; 14W	Spar Mtn, Mis	2,890	20	Abd 1953	0.1	1	0	0	0	X	L	Mis 3,010	
Amity W; Richland; 4N; 14W	Aux Vases, Mis	2,925	10	Abd 1954	0	1	0	0	0	X	S	Mis 3,100	
Ashley; Washington; 2S; 1W	Benoist, Mis	1,430	180	31	251	15	0	0	14	X	S	Dev 3,116	
Ashmore E; Coles; 13N; 14W	Pennsylvanian	415	10	Abd 1957	0	1	0	0	0	X	S	Pen 445	
Ashmore S; Coles, Clark; 12N; 10E, 11E-14W	Unnamed, Pen	420	150	3	20	15	0	1	14	X	S	AL Trn 2,260	
Assumption Cen; Christian; 13N; 1E	Devonian	2,433	20	Abd 1961	0	1	1	1	0	X	L	Dev 2,437	
• Assumption C; Christian; 13-14N; 1E	Benoist, Mis Spar Mtn, Mis Cedar Valley, Dev	1,050 1,170 2,300	2,920 430 320 2,890	329 X X X	7,048 X X X	174 43 16 115	0 0 0 0	2 0 0 2	110 40 38 40	X X X X	S S S L	A Ord 3,070 A AL A	
Assumption S; Christian; 12N; 1E	Cedar Valley, Dev	2,630	60	1	13	3	0	0	1	39	L	Dev 2,740	
Ava-Campbell Hill; Jackson; 7S; 3-4W	Cypress, Mis	780	80	0	X	16	0	0	0	X	S	Trn 3,582	
Baldwin; Randolph; 4S; 6W	Silurian	1,535	60	0.5	8	3	0	0	2	X	L	Trn 2,234	
• Barnhill; Wayne, White; 2-3S; 8E	Aux Vases, Mis Ohara, Mis Spar Mtn, Mis McClosky, Mis St. Louis, Mis Salem, Mis 2 or more pays	3,325 3,370 3,400 3,450 3,520 3,795	2,000 740 160 200 1,220 20 40	191 X X X X X	5,071 X X X X X	153 71 8 10 72 1 2 12	0 0 0 0 0 0 0	6 6 0 1 0 0 0	71 X X X 38 X 39	X X X X 0.17 X	S OL LS OL L	A Dev 5,500 AL AC AC AC AC AC	
• Bartelso; Clinton; 1-2N; 3W	Carlyle(Cyp), Mis Silurian	985 2,420	780 530 270	61 X X	3,673 X X	97 69 28	1 0 1	0 0 0	46 36 42	0.20 0.27	S L	D D R	St.P 4,212
Bartelso E; Clinton; 1N; 3W	Silurian	2,550	400	33	674	20	0	0	19	42	L	R	Si1 2,788

Well Name	Year	Value	1942	100	0	24	3	0	0	1	40	0.15	L	3	A	Dev
Bartelso S; Clinton; 1N; 3W	Devonian	2,475	1942	100	0	24	3	0	0	1	40	0.15	L	3	A	Dev 2,652
Bartelso W; Clinton; 1N; 3-4W	Cypress, Mis Silurian	960 2,439	1945 1945 1961	230 210 20	5 5 0	43 43 0	19 16 1	3 2 1	0 2 0	11	x x x	x x x	S L L	15 7 A	A	Dev 2,600
Beaucoup; Washington; 2S; 2W	Clear Creek, Dev Ironton, Ord * 2 or more pays	3,050 4,095	1951	280 280 20	7 x x	349 x x	14 14 1	0 0 0	0 0 0	14	x x x	x x x	L L L	12 5 A	A	Trn 4,192
Beaucoup S; Washington; 2S; 2W	Benoist, Mis	1,430	1951	230	49	617	22	0	1	14	x	x	S	9	AL	Dev 3,122
Beaver Creek; Bond, Clinton; 3-4N; 2-3W;	Benoist, Mis	1,130	1942	160	5	216	16	0	0	11	34	0.25	S	6	A	Sil 2,558
Beaver Creek N; Bond; 4N; 3W	Bethel, Mis	1,115	1949	50	0	1	6	1	0	2	x	x	S	4	A	Dev 2,556
Beaver Creek S; fClinton, Bond; 3-4N; 2-3W	Cypress, Mis Benoist, Mis	1,005 1,140	1946	470 10 460	28 0 -28	453 0 453	47 1 46	0 0 0	0	28	x x	x x	S S	20 5	A A	Sil 2,543
Beckemeyer Gas; fClinton; 2N; 3W	Cypress, Mis	1,070	1956	10	x	x	1	0	0	0	x	x	S	23	x	Sil 2,730
Bellair; Crawford, Jasper; 8N; 14W	"500 ft.", Pen "800 ft.", Pen "900 ft.", Mis Cypress, Mis Renault, Mis Aux Vases, Mis Ohara, Mis	560 815 885 1,210 830 800 860	1907	1,710	x	x	522	2	9	89	x	x	S	30	AM	Mis 1,471
Belle Prairie; Hamilton; 4S; 6-7E	Aux Vases, Mis McClosky, Mis 2 or more pays	3,250 3,420	1940	260 30 240	15 x x	727 x x	14 3 12	0 0 0	2 1 1	4	37 37	x 0.12	S L	8 6	A AC	Dev 5,483
Belle Prairie W; Hamilton; 4S; 5E	Harrodsburg, Mis	4,206	1959	40	Abd 1960	0.5	1	0	0	0	x	x	L	6	Mis	4,389
Belle River; Jefferson; 3S; 4E	McClosky, Mis	3,085	1943	220	5	357	6	0	0	4	39	0.50	L	6	AC	Mis 4,200
Bellmont; Webash; 1S; 13-14W	Bethel, Mis Ohara, Mis	2,650 2,840	1951	70 0 60	1 0 1	73 11 62	4 1 3	0 0 0	0	1	x x	x x	S L	7 7	M ML MC	Mis 3,006
Beman; Lawrence; 3N; 11W	Aux Vases, Mis Ste. Gen, Mis 2 or more pays	1,805 1,850	1942	500 40 480	3 x x	264 x x	23 4 19	0 0 0	4 0 4	9	x x 38	x x	S L	20 7	A AL AC	Mis 2,000
Beman E; Lawrence; 3N; 10W	Aux Vases, Mis Ste. Gen, Mis 2 or more pays	1,805 1,860	1947	100 20 90	Abd 1960	108	5	0	0	0	x x	x x	S L	20 7	A AL AC	Mis 1,907
Bennington S; Edwards; 1N; 10E	McClosky, Mis	3,240	1944	20	Abd 1946	10	1	0	0	0	x	x	L	8	MC	Mis 3,420

* Multiple pay or workover wells only.
† Pool listed in table 19 (gas production).

TABLE 18 — ILLINOIS OIL POOL STATISTICS, 1961 — Continued

Pool; county; location by township and range (*Secondary recovery—see Part II)	Pay zone Name, age, and depth in feet	Year of discovery	Area proved in acres	Oil production M bbls		Number of wells			Character of oil	Pay zone	Deepest test Zone and depth (ft)			
				During 1961	To end of 1961	Completed to end of 1961	Number of wells					Pro- ducing end of year		
							Com- pleted in 1961	Aban- doned 1961						
• Benton; Franklin; 6S; 2-3E	Pennsylvanian* 1,700 Tar Springs, Mis 2,100 Aux Vases, Mis 2,752 2,804 Ohara, Mis McClosky, Mis 2,906 St. Louis, Mis 2,990 Harrodsburg, Mis 3,705 2 or more pays 1958	1941	2,420	596	35,917	258	0	1	34	x	S	9	AL	6,250
Benton N; Franklin; 5-6S; 2E	Cypress, Mis 2,460 Bethel, Mis 2,600 Aux Vases, Mis 2,685 Ohara, Mis 2,730 Spar Mtn, Mis 2,775 McClosky, Mis 2,800 2 or more pays 1941	1941	790	64	2,163	63	2	0	49	x	S	17	A	Mis 3,700
Berry; Sangamon; 15N; 3W	Silurian 1,736 1943	1961	20	0	0	1	1	0	1	x	L	35	x	SH 1,774
• Berryville C; Wabash, Edwards; 1-2N; 14W	Ohara, Mis 2,900 Spar Mtn, Mis 2,850 McClosky, Mis 2,890 2 or more pays 1943	1943	540	9	975	19	0	0	0	x	L	6	M	Mis 3,125
Bessie; Franklin; 6S; 3E	Ohara, Mis 2,895 1947	1943	40	4	98	1	0	0	1	39	0.15	L	10	MC Mis 3,457
Bible Grove N; Effingham; 6N; 7E	Cypress, Mis 2,535 Spar Mtn, Mis 2,835 McClosky, Mis 2,875 2 or more pays 1947	1947	130	2	84	7	0	0	1	36	x	S	7	M Mis 2,999
Bible Grove S; Clay; 5N; 7E	Cypress, Mis 2,500 Aux Vases, Mis 2,740 1942	1942	50	2	117	3	0	0	2	x	S	10	M	Mis 2,953
Blackland; Macon, Christian; 15N; 1E-1W	Silurian 1,935 1953	1953	810	11	419	34	3	4	16	39	x	L	12	MU Ord 3,780
Blackland N; Macon; 16N; 1E	Silurian 1,948 1960	1960	40	1	5	2	0	0	2	x	L	11	M	SH 2,002
Black River; White; 4S; 13W	Clare, Mis 1,865 1952	1952	10	4	23	1	0	0	1	x	S	6	x	Mis 3,071
Blairsville W; Hamilton; 4S; 7E	Spar Mtn, Mis* 3,345 McClosky, Mis 3,405 2 or more pays 1951	1951	200	3	382	10	0	2	1	x	L	6	A	Mis 3,507
Blufford; Jefferson; 2S; 4E	McClosky, Mis 3,060 1961	1961	20	0	0	1	1	1	1	x	OL	6	x	Mis 3,833
Bogota; Jasper; 6N; 9E	Spar Mtn, Mis 3,090 1943	1943	300	4	486	10	0	2	2	x	L	4	A	Mis 3,234

Bogota (cont.)	McClosky, Mis	3,110	280	4	479	9	0	1	0	1	35	x	L	7	A
Bogota N; Jasper; 6N; 9E	McClosky, Mis	3,080	1949	20	Abd 1950	0	1	0	0	0	0	x	L	3	Mis 3,150
Bogota S; Jasper; 5-6N; 9E	McClosky, Mis	3,075	1944	480	8	478	23	0	0	17	35	x	L	8	MC Mis 3,182
• Bone Gap C; Edwards; 1S; 10-11E; 14W	Pennsylvanian	2,110	1941	1,240	43	2,112	60	1	1	21	x	x	S	8	A Mis 3,350
	Waltersburg, Mis	2,310		160	x	2	1	0	0	0	35	x	S	20	AL
	Cypress, Mis	2,710		70	3	259	7	0	0	0	x	x	S	10	A
	Bethel, Mis	2,880		30	x	x	3	0	0	0	x	x	S	14	AL
	Aux Vases, Mis	3,020		10	0	10	1	0	0	0	x	x	S	9	AL
	Ohara, Mis	3,040		80	x	x	4	0	0	0	x	x	L	5	AC
	Spar Mtn, Mis	3,045		100	x	x	5	1	1	1	x	x	L	5	AC
	McClosky, Mis	3,200		800	x	x	24	0	1	1	41	0.33	L	6	AC
	2 or more pays						2	0	1	1					
Bone Gap E; Edwards; 1S; 14W	Ohara, Mis	2,980	1951	40	Abd 1956	13	2	0	0	0	x	x	L	10	MC Mis 3,156
	McClosky, Mis	3,050		20	0	13	1	0	0	0	x	x	L	5	MC
Bone Gap W; Edwards; 1S; 10E	Ohara, Mis	3,290	1954	20	Abd 1955	2	1	0	0	0	x	x	L	5	X Mis 3,388
• Boulder; † Clinton; 2-3N; 2W	Benoist, Mis	1,190	1941	740	202	7,190	48	1	1	24	36	x	S	20	D Trn 3,813
	Geneva, Dev	2,630		530	x	x	27	0	0	0	28	0.33	D	7	R
Boulder E; † Clinton; 3N; 1W	Devonian	2,850	1955	60	3	37	3	0	0	1	x	x	L	5	X Dev 2,946
• Bourbon C; Douglas; 15N; 7E	Spar Mtn, Mis	1,600	1956	1,020	194	1,463	82	1	7	61	34	x	LS	12	NC Mis 1,715
Bourbon S; Douglas; 15N; 7E	Spar Mtn, Mis	1,693	1960	20	0	0	1	0	0	1	x	x	S	12	NC Mis 1,706
Bowyer; Richland; 5N; 14W	Spar Mtn, Mis	2,883	1958	20	0	8	1	0	0	1	36	x	S	x	X Mis 2,950
• Boyd; Jefferson; 1S; 1-2E	Benoist, Mis	2,060	1944	1,450	230	14,019	118	0	1	94	39	0.14	S	19	A Dev 3,870
	Aux Vases, Mis	2,130		1,440	x	x	113	0	1	0	39	x	S	15	A
	Ohara, Mis*	2,230		40	x	x	45	0	0	0	39	x	L	2	AC
	2 or more pays						36	0	0	0					
Broughton; Hamilton; 6S; 7E	McClosky, Mis	3,275	1951	20	Abd 1954	6	1	0	0	0	x	x	L	5	X Mis 3,355
Broughton S; Saline; 7S; 7E	McClosky, Mis	3,215	1951	20	Abd 1952	0	1	0	0	0	x	x	L	4	X Mis 3,300
• Brown; Marion; 1N; 1E	Cypress, Mis	1,670	1910	120	x	x	12	0	1	10	x	x	S	x	N Mis 2,036
• Browns; Edwards, Wabash; 1-2S; 14W	Tar Springs, Mis*	2,365	1943	950	107	1,866	55	1	1	28	x	x	S	14	AL A Dev 5,200
	Cypress, Mis	2,640		320	x	x	25	1	1	1	35	0.18	S	13	A
	Bethel, Mis	2,785		60	x	x	4	0	0	0	35	x	S	12	AL
	Aux Vases, Mis	2,965		10	x	x	1	0	0	0	x	x	S	7	AL
	Ohara, Mis	2,965		40	x	x	2	0	0	0	x	x	L	4	AC
	Spar Mtn, Mis*	2,975		20	x	x	1	0	0	0	x	x	L	3	AC
	McClosky, Mis	3,000		600	x	x	35	0	0	0	35	x	L	6	A
	2 or more pays						10	0	0	0					
• Browns E; Wabash; 1-2S; 14W	Cypress, Mis	2,570	1946	650	37	2,640	65	0	0	24	36	x	S	13	ML Mis 3,113

* Multiple pay or workover wells only.
† Pool listed in table 19 (gas production).

	1,150	1950	470	27	598	41	0	0	0	34	36	x	S	6	AL	Dev	2,558
Benoist, Mis	1,075	1951	20	Abd 1953	2	2	0	0	0	0	x	x	S	4	X	Mis	1,194
Cypress, Mis	1,300	1956	100	Abd 1959	6	1	0	0	0	0	x	x	S	14	X	Mis	3,407
Carlyle N; Clinton; 3N; 3W	1,210	1939	230	35	244	18	1	2	7	7	x	x	OL	6	M	Mis	3,340
Carlyle S; Clinton; 1N; 3W	1,210	1942	110	5	242	6	0	0	3	3	x	x	S	10	ML		
Carmi; White; 5S; 9E	2,800		60	x	x	7	0	0	0	0	x	x	S	15	ML		
	3,145		40	x	x	4	1	1	0	0	x	x	S	8	ML		
	3,150		120	x	x	6	1	1	0	0	x	x	OL	6	MC		
	2,940		20	x	x	1	0	0	0	0	x	x	S	13	A	Mis	3,452
	3,080		10	x	x	1	0	0	0	0	x	x	S	12	Af		
	3,270		100	x	x	5	0	0	0	0	x	0.14	S	14	Af		
						1	0	0	0	0							
	2,300	1906	2,300	x	x	503	2	6	337	337	x	x	AM	Trn	AM	Trn	2,608
	265		200	x	x	42	0	x			x	x	S	x	AM		
	300		400	x	x	84	1	x			x	x	S	x	AM		
	445		1,590	x	x	368	1	x			x	x	S	10	AM		
	1,300		240	x	x	19	0	x			x	x	S	50	AM		
	3,240		200	5	499	10	0	0	3	3	x	x	S	6	NL		3,919
	3,310		100	x	x	4	0	0	0	0	x	x	L	10	NC		
	x		20	x	x	1	0	0	0	0	x	x	L	x	NC		
	3,370		120	x	x	5	0	0	0	0	x	0.17	OL	4	NC		
						1	0	0	0	0							
	2,225		1,370	95	5,125	123	0	1	93	93	x	x	S	3	A	Mis	3,427
	2,500		400	x	x	31	0	0	0	0	x	0.20	S	24	Alf		
	2,615		10	x	x	1	0	0	0	0	x	x	S	22	Alf		
	2,915		390	x	x	42	0	0	0	0	x	x	S	6	Alf		
	2,990		200	x	x	18	0	1	0	0	x	x	S	20	Alf		
	3,075		340	x	x	32	0	0	0	0	x	x	S	21	Alf		
	3,175		40	x	x	2	0	0	0	0	x	x	OL	5	ACf		
	3,185		20	x	x	1	0	0	0	0	x	x	LS	6	ACf		
	3,230		260	x	x	14	0	0	0	0	x	x	OL	7	ACf		
						15	0	0	0	0							
	2,990	1947	10	Abd 1948	0	1	0	0	0	0	x	x	S	13	ML	Mis	3,290
	3,055	1955	10	Abd 1959	6	1	0	0	0	0	x	x	S	14	X	Mis	3,407
	765	1937	3,550	952	49,807	1,020	0	17	321	321	x	x	S	A	Ord		4,170
	1,200	1958	40	x	x	4	0	2	0	0	x	0.20	S	x	A		
	1,355		570	x	x	57	0	1	0	0	x	0.17	S	12	A		
	2,870		1,500	x	x	576	0	9	0	0	x	0.38	L	9	A		
	3,930		2,500	x	x	319	0	6	0	0	x	x	L	22	A		
			1,400	x	x	59	0	0	0	0	x	x	L	22	A		
						2	0	1	0	0							
	1,308	1940	90	2	399	10	0	0	2	2	x	x	S	4	N	Dev	3,021
	1,440	1940	90	2	398	9	0	0	0	0	x	0.17	S	9	N		
	1,780	1956	100	2	31	5	0	0	0	0	x	x	LS	8	ML	Mis	1,829

* Multiple pay or workover wells only.
† Pool listed in table 19 (gas production).

TABLE 18 — ILLINOIS OIL POOL STATISTICS, 1961 — Continued

Pool, county; location by township and range (*Secondary recovery—see Part II)	Pay zone Name, age, and depth in feet	Year of dis- covery	Area proved in acres	Oil production		Number of wells			Character of oil		Pay zone Kind of rock, av. thickness in feet, Structure	Deepest test Zone and depth in feet (ft)	
				During 1961	To end of 1961	Completed to end of 1961	Com- pleted in 1961	Aban- doned 1961	Pro- duc- ing end of year	Gr. API (%)			Sul- fur (%)
• Chesterville E; Douglas; 14-15N; 7-8E	Spar Mtn, Mis	1957	410	15	704	41	0	8	31	39	x	10 NC Mis 1,785	
Clark County Division; Clark, Coles, Crawford, Cumberland, Jasper		1965	27,270	1,421	78,010	5571	23	29	1965			St.P 3,411	
Totals for Bellair, Casey, Johnson N, Johnson S, Martinsville, Siggins, Westfield, and York Pools													
• Clarksburg; Shelby; 10N; 4E	Aux Vases, Mis	1946	40	1	32	4	1	0	3	34	x	6 A Dev 3,206	
• Clay City C; Clay, Wayne, Richland, Jasper; 1-7N, 1-2S; 6-10E	Waltersburg, Mis Tar Springs, Mis Cypress, Mis Bethel, Mis Aux Vases, Mis Ohara, Mis Spar Mtn, Mis McClosky, Mis St. Louis, Mis Salem, Mis Warsaw, Mis* Devonian 2 or more pays	1937	89,520	6,438	225,471	4,748	72	167	2,755			A St.P 7,205	
Clay City WC; Clay, Wayne; 2N; 7E	Cypress, Mis Aux Vases, Mis Ohara, Mis Spar Mtn, Mis McClosky, Mis St. Louis, Mis 2 or more pays	1941	1,200	56	2,712	81	35	2	50			A Dev 4,973	
Clifford; Williamson; 8S; 1E	Aux Vases, Mis Spar Mtn, Mis* McClosky, Mis* 2 or more pays	1957	30	2	11	2	0	0	2			Mis 2,625	
Coil; Wayne; 1S; 5E	Aux Vases, Mis McClosky, Mis	1942	490	26	1,538	18	0	0	13			A Mis 3,250	
Coil N; Wayne; 1N-1S; 5E	Aux Vases, Mis	1958	50	16	73	5	0	0	4			Mis 3,002	
• Coil W; Jefferson; 1S; 4E	Aux Vases, Mis Ohara, Mis Spar Mtn, Mis* McClosky, Mis Salem, Mis 2 or more pays	1942	390	47	701	21	1	5	6			A Mis 3,389	
Collinsville; Madison; 3N; 8W	Silurian	1909	40	Abd	1921	1	0	0	0			ML St.P 2,177	
Colmar-Plymouth; Hancock, McDonough, Hoing, Dev 4-5N; 4-5W		1914	2,550	51	4,365	502	0	0	201	38	0.38	S 14 AL Shak 1,095	

	1942	1,930	382	6,222	159	1	15	112	36	A	Mis				
• Concord C; White; 6S; 10E	Tar Springs, Mis Hardinsburg, Mis Cypress, Mis Aux Vases, Mis Ohara, Mis Spar Mtn, Mis McClosky, Mis 2 or more pays	2,270 2,510 2,625 2,905 2,930 3,035 2,990	210 310 230 530 40 80 1,120	x x x x x x x	159 24 28 18 45 2 3 55 14	0 0 0 1 0 0 0 0	7 0 0 4 0 1 4 1	0 0 0 0 0 0 0 0	x x x 0.15 x x x	11 7 10 14 8 10	AL A AL AL AC AC AC	3,138			
Concord E C; White; 6-7S; 10E	Waltersburg, Mis Tar Springs, Mis Cypress, Mis Renault, Mis Aux Vases, Mis Ohara, Mis Spar Mtn, Mis McClosky, Mis 2 or more pays	2,140 2,175 2,540 2,800 2,825 2,895 2,895 2,965	360 30 60 180 20 60 40 100 30	27 x x x x x x x	635 37 3 5 18 2 6 2 5 2 2	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	25	x x x x x x x	10 4 6 6 12 6 5 2	A A A A A AC AC AC	3,125			
• Cooks Mills C;† Coles, Douglas; 13-14N; 7-8E	Cypress, Mis Aux Vases, Mis Spar Mtn, Mis McClosky, Mis 2 or more pays	1,600 1,765 1,800 1,840	3,150 10 20 3,130 20	105 x x x	233 1 2 229 1 1	2 0 0 2 0 0	11 0 0 11 0 0	204	x x 36 x	20 15 9 4	A A A A	3,028			
• Cordes; Washington; 3S; 3W	Benoist, Mis	1,260	1,310	182	8,411	154	3	58	36	0.19	S	14	Trn	3,880	
Corinth; Williamson; 8S; 4E	Aux Vases, Mis Ohara, Mis Spar Mtn, Mis 2 or more pays	2,885 2,929 2,985	130 100 20 40	13 x x x	11 10 1 2 3	0 0 0 0 0	0 0 0 0 0	11	x x x x	10 10 10 10	X X X X	Mis	3,155		
Corinth E; Williamson; 8S; 4E	McClosky, Mis	3,035	20	Abd	1960	11	0	0	x	x	L	10	X	Mis	3,113
Corinth N; Williamson; 8S; 4E	Aux Vases, Mis	2,935	10	Abd	1960	4	0	0	x	x	S	16	X	Mis	3,180
Cottage Grove; Saline; 9S; 7E	Ohara, Mis	2,770	20	0.5	12	1	0	1	x	x	L	x	X	Mis	2,977
Coulterville N; Washington; 3S; 5W	Silurian	2,290	80	3	22	4	0	3	x	x	L	x	Ord	3,204	
• Covington S; Wayne; 2S; 6E	McClosky, Mis Harrodsburg, Mis	3,310 4,148	520 380 140	37 13 24	210 184 26	16 11 5	6 3 3	7	39	0.18	L	5	AC	Dev	5,300
Craig; Perry; 4S; 4W	Trenton, Ord	3,650	20	Abd	1951	2	0	0	35	x	L	20	A	Ord	3,735
Cravat; Jefferson; 1S; 1E	Benoist, Mis	2,070	120	4	358	11	0	6	35	0.23	S	10	A	Dev	3,850
Cravat W; Jefferson; 1S; 1E	Pennsylvanian Bethel, Mis	1,045 2,070	120 110 10	12 12 0	49 49 0	12 11 1	0 0 0	12	x x	x x	S S	10 10	X X	Mis	2,382
Crossville; White; 4S; 10E	Bethel, Mis	2,880	130	Abd	1952; rev 1956; abd 1958	11	0	0	x	x	S	9	ML	Mis	3,283

* Multiple pay or workover wells only.
† Pool listed in table 19 (gas production).

• Dubois C;† Washington; 3S; 1-2W	Spar Mtn, Mis 2 or more pays	1,530	1954	60	x	x	3	0	0	0	x	x	L	8	X	
	Cypress, Mis	1,230	1939	1,170	67	1,181	105	0	2	89	x	x	S	10	A	Ord 4,217
	Benoist, Mis	1,325		820	x	x	71	0	2		x	0.26	S	10	AL	
	2 or more pays			500	x	x	36	0	0		32		S	10	AL	
	Dudley;†Edgar; 13-14N; 13W		1948	580	51	923	74	0	0	62	36	x	S	20	M	St. P 2,997
	Upper Dudley, Pen	310		260	x	x	20	0	0		25	x	S	50	ML	
	Lower Dudley, Pen	410		560	x	x	54	0	0				S		ML	
	Dudleyville E; Bond; 4-5N; 2-3W		1954	40	Abd	1961	3	2	1	0	x	x	L	5	X	Ord 3,397
	Dupo; St. Clair; 1N, 1S; 10W	700	1928	1,020	6	2,865	321	0	0	29	33	0.70	L	50	A	Ord 1,800
	Eberle; Effingham; 6N; 6E		1947	130	2	102	7	0	0	4	36	x	S	10	N	Mis 2,882
	Spar Mtn, Mis	2,475		10	x	x	1	0	0				S		NL	
	McClosky, Mis	2,680		40	x	x	2	0	0		x	x	LS	5	NC	
		2,820		80	x	x	4	0	0		36	x	L	7	N	
	Edinburg; Christian; 14N; 3W		1949	20	Abd	1951	0	1	0	0	x	x	L	2	A	Dev 1,853
	Edinburg S; Christian; 14N; 3W	1,795	1955	40	0	4	2	0	0	1	x	x	LS	13	X	St1 1,902
	Edinburg W; Christian, Sangamon; 14N; 3-4W	1,660	1954	1,500	401	1,703	74	22	0	70	41	x	S	6	A	Ord 2,285
		1,590		60	x	x	3	0	0		41	x	L	8	A	
	2 or more pays			1,480	x	x	73	22	0				L			
	Elba; Gallatin; 8S; 8E		1955	180	Abd	1960	25	13	0	0	x	x	S	x	X	Mis 2,991
		2,617	1958	10	x	x	1	0	0				S		X	
		2,660		50	x	x	3	0	0		x	x	S	10	X	
		2,770		10	x	x	1	0	0		x	x	L	3	X	
		2,780		80	x	x	5	0	0		x	x	S	5	X	
		2,820	1955	80	x	x	3	0	0		x	x	L	11	X	
	2 or more pays			80	x	x	3	0	0				L			
	Elbridge; Edgar; 12-13N; 11W		1949	380	17	1,420	39	0	0	18	x	x	S	3	D	Trn 3,300
		760		20	x	x	2	0	0				S		D	
		950		360	x	x	36	0	0		35	x	L	3	D	
		1,950	1949	20	x	x	2	0	0		x	x	L	20	D	
	• Eldorado C;†Saline; 8S; 6-7E		1941	2,670	254	6,631	254	30	7	221	x	x	S	20	A	Mis 3,606
		1,920		230	x	x	21	1	1				S		AL	
		2,125		1,380	x	x	138	3	1		38	x	S	25	AL	
		2,200		150	x	x	15	1	3		x	x	S	15	AL	
		2,350		230	x	x	23	10	3		x	x	S	8	AL	
		2,575		110	x	x	10	3	0		x	x	S	8	AL	
		2,680		60	x	x	6	0	0		x	x	S	18	AL	
		2,900		660	x	x	59	15	1		x	x	L	5	AC	
		2,900		60	x	x	3	1	1		x	x	L	5	AC	
		2,900		40	x	x	2	1	1		x	x	LS	4	AC	
		2,975		40	x	x	2	0	0		34	0.14	L	5	AC	
	2 or more pays			40	x	x	15	0	2				L			
	• Eldorado E;†Saline; 8S; 7E		1953	290	20	295	23	1	4	12	x	x	S	10	A	Mis 3,102
		1,915		20	x	x	2	1	1				S		AL	
		2,190		20	x	x	2	0	0		x	x	S	10	AL	
		2,515		30	x	x	3	0	0		x	x	S	20	AL	

* Multiple pay or workover wells only.
† Pool listed in table 19 (gas production).

TABLE 18 — ILLINOIS OIL POOL STATISTICS, 1961 — Continued

Pool; county; location by township and range (*Secondary recovery—see Part II)	Pay zone Name, age, and depth in feet	Year of discovery	Area proved in acres	Oil production M bbls		Number of wells			Character of oil		Pay zone Kind of rock, av. thickness in feet, Structure	Deepest test Zone and depth (ft)	
				During 1961	To end of 1961	Completed to end of 1961	Com-pleted in 1961	Aban-doned 1961	Pro-ducting end of year	Gr. API (%)			Sul-fur (%)
Eldorado E (cont.)	Aux Vases, Mis Spar Mtn, Mis 2 or more pays	1955	210	x	x	16	0	3	x	x	S 6 L 4 AC		
			20	0	x	1	0	0	x	x			
Eldorado W; †Saline; 8S; 6E	Palestine, Mis Renault, Mis Aux Vases, Mis 2 or more pays	1955	50	3	46	5	0	1	x	x	S 18 L 6 L 6	Mis 3,138	
		1956	20	x	x	2	0	0	x	x			
		1955	20	x	x	2	0	1	x	x			
		1960	20	x	x	2	0	0	x	x			
		1960	20	x	x	1	0	0	x	x			
		1960	20	x	x	2	0	0	x	x			
		1960	20	x	x	1	0	0	x	x			
Elk Prairie; Jefferson; 4S; 2E		1938	40	4	10	2	0	0	x	x	S 6 L 4	Mis 3,470	
		1938	40	Abd 1940; rev 1960	x	2	0	0	x	x			
		1960	20	x	x	1	0	0	x	x	L 7 L 8	X	
		1960	20	x	x	1	0	0	x	x			
Elkton; Washington; 2S; 4W	Bailey, Dev	1955	40	Abd 1960	3	2	0	0	x	x	L 30	Dev 2,485	
Elkville; Jackson; 7S; 1W	Benoist, Mis	1941	10	0	4	1	0	0	36	0.22	S 10	Mis 2,367	
• Ellery E; Edwards; 2S; 10E	Aux Vases, Mis Ohara, Mis Spar Mtn, Mis	1952	340	75	825	25	0	1	x	x	S 35 ML 6 MC 4	Mis 3,390	
		1952	160	x	x	13	0	1	x	x			
		2055	180	x	x	11	0	0	x	x			
		2055	60	x	x	3	0	0	x	x			
Ellery N; Edwards; 2S; 10E		1942	160	1	27	7	1	0	x	x	L 4	Mis 3,495	
		1942	160	Abd 1943; rev & abd 1951; rev 1954	x	2	0	0	x	x			
		2055	20	x	x	2	0	0	x	x	S 35	ML	
		2055	10	x	x	1	0	0	x	x	S 12	ML	
		2055	80	x	x	4	0	0	x	x	S 8	ML	
		2055	60	x	x	2	1	0	37	0.19	L 7	MC	
		2055	60	x	x	1	0	0	x	x			
Ellery S; Edwards; 2-3S; 10E		1943	210	0	173	9	0	0	x	x	M	Mis 3,434	
		1943	210	Abd 1952; rev 1953; abd 1959; rev & abd 1960	5	5	0	0	x	x	S 15	ML	
		2055	50	0	35	4	0	0	38	x	L 9	MC	
		2055	160	0	138	4	0	0	x	x			
Elliotstown; Effingham; 7N; 7E	Spar Mtn, Mis	1947	20	Abd 1951	14	1	0	0	x	x	S 8	HL Mis 2,884	
Elliotstown E; Effingham; 7N; 7E	Cypress, Mis	1954	10	Abd 1956	3	1	0	0	x	x	S 5	HL Mis 2,867	
Elliotstown N; Effingham; 7N; 7E	Cypress, Mis	1953	20	Abd 1958	11	2	0	0	x	x	S 4	HL Mis 2,865	
• Enfield; White; 5S; 8E		1950	330	94	700	21	1	0	x	x	A	Mis 4,259	
		1950	330	Abd 1951; rev 1952	x	12	1	0	x	x	S 10	AL	
		2055	160	x	x	4	0	0	x	x	L 4	AC	
		2055	80	x	x	4	0	0	x	x	L 8	AC	
		2055	100	x	x	5	0	0	x	x	L 8	AC	
Enfield S; White; 6S; 8E	Aux Vases, Mis* McClosky, Mis 2 or more pays	1961	40	x	x	2	2	0	x	x	S 2	Mis 3,314	
		1961	20	x	x	1	1	0	x	x	L 6	X	
		1961	40	x	x	2	2	0	x	x	L 6	X	
		1961	40	x	x	1	1	0	x	x	L 6	X	

	1948	90	6	88	5	0	0	0	4	A	Mis	2,808
Evers; Effingham; 8N; 7E			Abd 1949; rev 1953									
Spar Mtn, Mis	2,610	60	x	x	3	0	0	0	39	x	L	7 AL
McClosky, Mis	2,660	30	x	x	2	0	0	0	x	x	L	4 AC
Evers S; Effingham; 7N; 7E			Abd 1951	2	1	0	0	0	0	x	LS	8 AC Mis 2,771
Ewing; Franklin; 5S; 3E			2	508	8	0	1	0	0	x	S	8 A Mis 3,094
Aux Vases, Mis	2,835	10	0	57	1	0	1	0	37	x	S	8 AL
McClosky, Mis	2,970	140	0	451	7	0	0	0	x	x	L	7 A
Ewing E; Franklin; 5S; 3E			x	x	1	0	0	0	1	x	L	10 X Mis 3,292
Ohara, Mis	3,010	20										
Exchange; Marion; 1N; 3E			1	64	2	0	0	0	1	x	L	10 MC Mis 2,869
Ohara, Mis*	2,695	80	x	x	2	0	0	0	x	x	L	8 MC
McClosky, Mis	2,730	80	x	x	2	0	0	0	x	x	L	8 MC
Exchange E; Marion; 1N; 4E			16	371	16	0	0	0	14	x	L	14 X Mis 3,006
Ohara, Mis	2,775	20	x	x	1	0	0	0	x	x	L	14 X
Spar Mtn, Mis	2,780	180	x	x	7	0	0	0	x	x	S	11 X
McClosky, Mis	2,840	180	x	x	6	0	0	0	x	x	L	4 X
St. Louis, Mis	2,940	20	x	x	1	0	0	0	x	x	L	8 X
2 or more pays					1	0	0	0	0			
Exchange N; Marion; 1N; 3-4E			0	8	3	0	0	0	0	x	L	6 MC Mis 2,831
McClosky, Mis	2,715	60	Abd 1952; rev 1955; abd 1959									
Exchange W; Marion; 1N; 3E			1	11	2	0	0	0	2	x	L	6 X Mis 2,779
McClosky, Mis	2,650	40										
Fairman; Marion, Clinton; 3N; 1E, 1W			34	1,831	58	0	0	0	24	0.27	S	10 A Ord 4,100
Benoist, Mis	1,435	670	9	1,672	44	0	0	0	37	x	L	20 A
Trenton, Ord	3,950	480	25	159	14	0	0	0	x			
Fitzgerald; Jefferson; 4S; 1E			Abd 1952	16	1	0	0	0	0	x	S	5 X Mis 3,012
Benoist, Mis	2,760	10	0	x	1	0	0	0	x	x	S	5 X
Aux Vases, Mis*	2,800	10	0	x	1	0	0	0	x	x	S	5 X
Flora S; Clay; 2N; 6E			1	168	4	0	0	3	39	x	L	6 AC Mis 3,361
McClosky, Mis	2,985	100	Abd 1961									
Francis Mills; Saline; 7S; 7E			4	77	2	0	0	0	1	x	S	5 X Mis 3,238
Cypress, Mis	2,675	20										
Francis Mills S; Saline; 7S; 7E			Abd 1957	6	2	0	0	0	1	x	L	11 X Mis 3,180
Ohara, Mis	3,010	40										
Freeburg; St. Clair; 1-2S; 7W			x	x	2	0	0	0	0	x	S	30 X Ord 2,000
Cypress, Mis	380	20										
Friendsville Cen; Wabash; 1N; 13W			0	31	5	0	0	0	0	x	S	15 MC Mis 2,630
Bethel, Mis	2,330	50										
Friendsville N; Wabash; 1N; 12-13W			5	217	16	2	0	0	5	x	S	12 MC Mis 2,592
Biehl, Pen	1,620	140	x	x	15	2	0	0	x	x	S	12 MC
Bethel, Mis	2,308	10	x	x	1	0	0	0	x	x	S	11 M
Frogtown; Clinton; 2N; 3-4W			0	x	14	0	0	0	0	x	S	7 ML Trn 3,290
Carlyle (Cyp), Mis	950	300	Abd 1933; rev 1949									
Frogtown N; Clinton; 2-3N; 3-4W			45	1,799	34	0	2	0	23	x	L	10 D Sil 2,456
St. Louis, Mis	1,200	580	x	x	5	0	0	0	x	x	L	8 D
Dev - Sil	2,250	580	x	x	29	0	2	0	x	x	L	8 R
Gards Point C; Wabash; 1N; 14W			45	708	35	0	2	0	27	x	L	6 MC Mis 2,961
Ohara, Mis	2,870	820										

* Multiple pay or workover wells only.
† Pool listed in table 19 (gas production).

TABLE 18 — ILLINOIS OIL POOL STATISTICS, 1961 — Continued

Pool, county; location by township and range (*Secondary recovery—see Part II)	Pay zone Name, age, and depth in feet	Year of dis- covery	Area proved in acres	Oil production M bbls		Number of wells			Character of oil		Pay zone Kind of rock, av. thickness in feet, Structure	Deepest test Zone and depth (ft)	
				During 1961	To end of 1961	Completed to end of 1961	Com- pleted in 1961	Aban- doned 1961	Pro- ducing end of	Gr. API			Sul- fur (%)
Gays; Moultrie; 12N; 6E		1946	100	Abd 1950; rev 1955	0	0	0	0	0	0	M	Dev 3,305	
Aux Vases, Mis	1,970		100	x	5	0	0	0	0	0	S	5 ML	
Devonian*	3,205	1955	20	x	1	0	0	0	0	0	L	3 MC	
2 or more pays					1	0	0	0	0	0			
• Germantown E; Clinton; 1-2N; 4W	2,350	1956	600	106 1,394	27	0	0	0	0	0	L	30 R Trn 3,310	
McClosky, Mis	2,850	1957	540	28 540	27	0	1	22	x	x	OL	3 MC Mis 2,971	
Unnamed, Pen	650	1915	45	x	23	0	0	0	0	0	S	x I Ord 2,560	
Silurian	1,680	1955	160	0 1	8	7	1	6	x	x	L	9 X Sil 1,821	
• Goldengate C; Wayne, White, Edwards; 2-4S; 9-10E	2,942	1938	7,440	Abd 1957; rev 1959; abd 1960; rev 1961	450	9	17	316				A	Dev 5,522
Cypress, Mis	3,110	1960	30	x	3	0	0	0	x	x	S	8 A	
Bethel, Mis	3,180		280	x	21	0	0	0	x	x	S	11 HL	
Aux Vases, Mis	2,120		2,120	x	170	0	10	40	0.14	0	S	15 AL	
Ohara, Mis	3,250		1,560	x	47	0	3	39	x	x	OL	6 AC	
Spar Mtn, Mis	3,275		1,960	x	63	0	3	39	x	x	LS	7 AC	
McClosky, Mis	3,310		3,120	x	137	0	5	40	0.19	0	OL	7 AC	
St. Louis, Mis	3,430		60	x	3	0	0	0	x	x	L	10 HL	
Harrodsburg, Mis	4,125	1961	20	x	1	0	1	0	x	x	L	9 A	
Dutch Creek, Dev	5,346	1961	80	x	8	0	0	0	x	x	S	10	
2 or more pays					92	0	3						
Goldengate E; Wayne; 3S; 9E	3,290	1951	20	Abd 1957 5	1	0	0	0	x	x	L	3 X Mis 3,420	
Ohara, Mis	3,095	1945	660	23 494	43	0	2	31			S	M Mis 3,509	
Bethel, Mis*	3,235		10	x	2	0	0	0	x	x	S	3 ML	
Aux Vases, Mis	3,300		280	x	27	0	2	40	x	x	S	25 ML	
Ohara, Mis*	3,325		120	x	6	0	0	37	x	x	L	4 MC	
Spar Mtn, Mis	3,350		200	x	9	0	0	37	x	x	L	5 MC	
McClosky, Mis			200	x	10	0	1	x	x	x	L	6 MC	
2 or more pays					13	0	2						
Pennsylvanian	560	1945	60	0 4	6	0	0	4	30	x	S	10 M Ord 2,694	
Grayson; Saline; 8S; 7E	2,515	1957	60	2 14	3	1	0	2			S	X Mis 3,045	
Cypress, Mis*	2,913	1961	10	x	1	0	0	0	x	x	S	6 X	
Aux Vases, Mis	2,920		20	0 0	1	0	1	0	x	x	L	4 X	
McClosky, Mis			40	x	1	0	0	0	x	x	L	6 X	
2 or more pays					1	0	0	0					
Linglie, Dev	2,240	1957	20	Abd 1958 0	1	0	0	0	x	x	L	5 A Trn 3,184	
Half Moon; Wayne; 1S; 9E	3,190	1947	1,210	42 2,221	62	0	0	59			S	M Mis 3,510	
Aux Vases, Mis	3,280		20	x	1	0	0	0	x	x	S	18 ML	
Ohara, Mis	3,280		740	x	36	0	0	0	x	x	L	11 MC	
Spar Mtn, Mis	3,300		200	x	10	0	0	0	x	x	L	4 MC	
McClosky, Mis			400	x	21	0	0	27	x	x	L	10 MC	
2 or more pays					6	0	0	0					
• Harcoff Saline; 8S; 5E	2,330	1954	800	57 1,134	76	1	1	57			S	X Mis 3,163	
Hardinsburg, Mis*		1956	10	x	1	0	0	0	x	x	S	6 X	

Cypress, Mis	2,618	1959	10	x	x	1	0	0	0	x	x	S	8	X	
Sample, Mis	2,675		30	x	x	3	0	1	0	x	x	S	8	X	
Aux Vases, Mis	2,860		680	x	x	61	0	0	0	x	x	S	15	X	
Ohara, Mis	2,965		100	x	x	6	1	0	0	x	x	L	10	X	
Spar Mtn, Mis	2,970		140	x	x	7	0	0	0	x	x	LS	10	X	
2 or more pays						3	0	0	0						
• Harco E† Saline; 8S; 5E								15	1					X Mis 3,031	
Cypress, Mis	2,575	1955	250	19	267	22	0	0	0	x	x	S	20	X	
Aux Vases, Mis	2,865	1955	60	x	x	6	0	0	0	x	x	S	8	X	
Ohara, Mis	2,880	1956	170	x	x	12	1	1	0	x	x	L	14	X	
2 or more pays			40	x	x	2	0	0	0	x	x				
Waltersburg, Mis	2,020	1954	90	1	137	9	0	0	0	38	x	S	14	X	
Tar Springs, Mis	2,115	1955	80	1	136	8	0	0	0	x	x	S	6	X	
2 or more pays			10	0	0.5	1	0	0	0						
Harrisburg S; Saline; 9S; 6E									0					X Mis 2,930	
Harrisburg S; Saline; 9S; 6E	2,300	1955	10	Abd	1956	0	1	0	0	x	x	S	x	X	
Harrisburg S; Saline; 9S; 6E	2,050	1954	220	14	125	11	0	0	0	x	x	L	3	MU Sil 2,117	
Herald C; White, Gallatin; 6-8S; 9-10E								350	4					A Mis 3,394	
Pennsylvanian	1,060	1939	5,040	471	11,320	517	4	10	0	29	x	S	10	AL	
Pennsylvanian	1,500		190	x	x	17	1	0	0	29	x	S	15	AL	
Pennsylvanian	1,750		50	x	x	5	1	1	0	29	x	S	18	AL	
Degonia, Mis	1,920		30	x	x	3	0	0	0	36	x	S	12	AL	
Clore, Mis*	1,965		20	x	x	2	0	0	0	x	x	S	10	AL	
Palestine, Mis	1,940		10	x	x	1	0	0	0	x	x	S	20	AL	
Waltersburg, Mis	2,240		420	x	x	39	0	3	0	38	x	S	10	A	
Tar Springs, Mis	2,260		480	x	x	48	0	0	0	37	0.24	S	13	A	
Cypress, Mis	2,660		1,540	x	x	155	2	2	0	36	0.22	S	14	A	
Bethel, Mis	2,790		220	x	x	19	0	3	0	36	x	S	11	AL	
Aux Vases, Mis	2,920		2,140	x	x	223	0	4	0	36	x	S	6	AL	
Ohara, Mis	2,965		140	x	x	7	0	0	0	37	x	L	6	AC	
Spar Mtn, Mis	3,005		140	x	x	7	0	0	0	x	x	L	4	AC	
McClosky, Mis	3,010		420	x	x	22	0	0	0	38	x	L	10	AC	
2 or more pays						25	0	0	0						
Hidalgo; Jasper; 8N; 10E	2,575	1940	60	Abd	1952	10	3	0	0	0	37	0.20	L	4	MC Dev 4,140
Hidalgo N; Cumberland; 9N; 9E										2				X Mis 2,776	
Spar Mtn, Mis	2,655	1946	80	2	23	4	0	0	0	x	x	S	12	X	
McClosky, Mis	2,676	1959	40	x	x	2	0	0	0	x	x	OL	9	X	
2 or more pays						1	0	0	0						
Highland; Madison; 4N; 5W	1,941	1960	20	0	0	1	0	0	0	x	x	S	7	U Dev 1,983	
Hill; Effingham; 6N; 6E	2,565	1943	80	Abd	1950	41	2	0	0	0	39	x	L	5	N Mis 2,710
Hill E; Effingham; 6N; 6E														X Mis 3,251	
Cypress, Mis	2,460	1954	430	77	937	33	0	0	0	37	x	S	8	X	
Aux Vases, Mis	2,650	1957	10	x	x	23	0	0	0	x	x	S	10	X	
Spar Mtn, Mis	2,660		40	x	x	2	0	0	0	x	x	L	5	X	
McClosky, Mis	2,700		160	x	x	8	0	0	0	40	x	L	7	X	
2 or more pays						1	0	0	0						
Hoffman; Clinton; 1N; 2W	1,190	1939	260	7	750	48	0	0	0	x	x	S	11	A	
Benoist, Mis	1,320		180	x	x	36	0	0	0	33	0.21	S	7	A	
2 or more pays						1	0	0	0						

* Multiple pay or workover wells only.
† Pool listed in table 19 (gas production).

1,690	50	x	x	4	0	0	0	37	x	S	10	AF
1,725	60	x	x	6	0	0	0	37	x	S	8	AF
1,840	50	x	x	4	0	0	0	37	x	S	13	AF
1,980	620	x	x	58	0	1	1	38	x	S	18	AF
2,080	1,540	x	x	151	1	1	1	36	0.24	S	13	AF
2,135	230	x	x	17	0	0	0	34	x	S	10	AF
2,390	1,500	x	x	140	1	0	0	35	0.23	S	14	AF
2,715	240	x	x	24	0	5	0	38	x	S	8	AF
2,795	20	x	x	1	0	0	0	x	x	L	5	AF
2,790	20	x	x	1	0	0	0	x	x	L	7	AF
2,800	140	x	x	6	0	0	0	38	x	L	8	AF
2,960	20	x	x	1	0	0	0	x	x	L	10	AF
2 or more pays	1957	x	x	46	1	0	0					
240	3,510	245	5,655	308	9	4	0					T Mis 3,094
925	40	x	x	4	0	0	0	x	x	S	8	NL
1,630	30	x	x	3	0	0	0	x	x	S	5	NL
1,750	70	x	x	7	1	0	0	x	x	S	12	NL
1,765	40	x	x	4	0	0	0	31	x	S	13	NL
2,080	100	x	x	8	0	0	0	x	x	S	10	IL
2,140	870	x	x	82	2	1	1	37	x	S	8	IL
2,300	220	x	x	17	0	0	0	x	x	S	10	IL
2,475	1,500	x	x	140	5	2	0	37	x	S	10	T
2,610	10	x	x	1	0	0	0	x	x	S	30	T
2,775	30	x	x	3	0	0	0	x	x	L	7	T
2,790	690	x	x	64	3	1	0	x	x	S	15	TL
2,815	120	x	x	6	0	0	0	x	x	L	12	TC
2,815	60	x	x	4	0	0	0	x	x	L	8	TC
2,940	280	x	x	14	0	0	0	36	0.19	L	6	TC
2 or more pays				58	1	0	0					
2,420	10	Abd 1957	1	1	0	0	0	x	x	S	5	X Mis 2,723
1,890	3,380	342 11,711	269	1	3	0	0					A Dev 4,227
2,125	10	x	x	1	0	0	0	x	x	S	9	AL
2,255	490	x	x	49	0	1	0	36	x	S	15	A
2,290	50	x	x	5	1	0	0	x	x	S	10	AL
2,320	890	x	x	77	0	0	0	36	0.14	S	12	A
2,325	10	x	x	1	0	0	0	x	x	L	x	AC
2,400	1,730	x	x	173	0	1	0	35	0.25	S	10	A
2,425	1,090	x	x	55	0	0	0	37	x	LS	7	A
2 or more pays	860	x	x	43	0	1	0	38	x	OL	10	A
200	200	14	248	15	0	0	0	12				A Dev 4,325
2,490	120	x	x	9	0	0	0	37	x	S	10	AL
2,590	100	x	x	5	0	0	0	x	x	L	6	AC
2,650	40	x	x	2	0	0	0	37	x	L	3	AC
2 or more pays				1	0	0	0					
2,495	20	Abd 1945	0.5	1	0	0	0	x	x	L	11	MC Mis 2,613
1,525	1,270	181	7,163	136	0	5	0					A Ord 4,440
1,380	10	x	x	1	0	0	0	x	x	L	3	AC
1,535	320	x	x	32	0	0	0	38	x	S	12	A
3,090	870	x	x	83	0	5	0	38	0.16	S	12	A
4,275	420	x	x	17	0	0	0	39	0.27	L	12	A
2 or more pays	120	x	x	6	0	0	0	39	x	L	90	A
2 or more pays				3	0	0	0					

• Inman W C; Gallatin; 7-8S; 9-10E

Iola Cen; Clay; 5N; 5E

• Iola C; Clay, Effingham; 5-6N; 5-6E

Iola S; Clay; 4N; 5E

Iola W; Clay; 5N; 5E

• Irvington; Washington; LS; LW

* Multiple pay or workover wells only.
† Pool listed in table 19 (gas production).

TABLE 18 — ILLINOIS OIL POOL STATISTICS, 1961 — Continued

Pool, county, location by township and range and range (*Secondary recovery—see Part II)	Pay zone Name, age, and depth in feet	Year of discovery	Area proved in acres	Oil production M bbls		Number of wells			Character of oil	Pay zone	Deepest test		
				During 1961	To end of 1961	Completed to end of 1961	Number of wells					Sul-fur Gr. API (%)	
							Abandoned 1961	Producing end of year 1961					Kind of rock, av. thickness in feet, Structure
Irvington E; Jefferson; 1S; 1E	Pennsylvanian 1,030 Cypress, Mis 1,750 Benoist, Mis 1,950 2 or more pays	1951	290	53	548	27	0	0	26	x	x	X	Mis 2,222
Irvington N; Washington; 1N, 1S; 1W	Cypress, Mis 1,340 Benoist, Mis 1,470	1953	260	63	849	26	0	0	26	x	x	A	Ord 4,334
• Iuka; Marion; 2N; 4E	Aux Vases, Mis 2,528 Ohara, Mis 2,650 Spar Mtn, Mis* 2,660 McClosky, Mis 2,750 St. Louis, Mis 2,775 2 or more pays	1947 1960	860 30	32	793	44	2	1	32	x	x	M	Mis 2,911
Iuka W; Marion; 2N; 3-4E	McClosky, Mis 2,700	1955	80	1	12	3	0	0	1	x	x	L	Mis 2,801
Jacksonville Gas; Morgan; 15N; 9W	Gas, Pen-Mis 330	1910	60	Abd	1939	2	8	0	0	x	x	LS	ML Ord 1,390
• Johnson N; Clark; 9-10N; 14W	Kickapoo, Pen 315 Claypool, Pen 415 Casey, Pen 465 Upper Partlow, Pen 535 McClosky, Mis 556 Carper, Mis 1,325	1907	3,580	x	x	619	4	8	322	x	x	S	AM Dev 2,260
• Johnson S; Clark; 9N; 14W	Claypool, Pen 390 Casey, Pen 450 Upper Partlow, Pen 490 Lower Partlow, Pen 600 Aux Vases, Mis 717	1907	3,080	x	x	654	1	1	287	x	x	AM	Dev 2,030
• Johnsonville C; Wayne; 1N, 1S; 6-7E	Bethel, Mis* 2,950 Aux Vases, Mis 3,020 Ohara, Mis 3,120 Spar Mtn, Mis 3,150 McClosky, Mis 3,170 St. Louis, Mis 3,256 Salem, Mis 3,852 2 or more pays	1940	9,180	1,675	37,667	433	1	1	375	x	x	A	Trn 6,460
Johnsonville N; Wayne; 1N; 6E	Ohara, Mis* 3,190 Spar Mtn, Mis 3,220 McClosky, Mis* 3,250 2 or more pays	1943	120	3	81	5	0	0	4	38	0.17	OL	Mis 3,335

Johnsonville S; Wayne; 1S; 6E	1942	Aux Vases, Mis Spar Mtn, Mis McClosky, Mis	3,060 3,160 3,200	440 270 20 160	12 x x x	567 x x x	33 26 1 6	0 0 0 0	0 0 0 0	24	39 x 38	x x x	S L L	15 4 5	A A AC AC	Mis 3,300
Johnsonville W; 1N, 1S; 5-6E	1942	Bethel, Mis Aux Vases, Mis Ohara, Mis Spar Mtn, Mis McClosky, Mis	2,925 2,900 2,930 3,015 3,100	600 10 210 80 40 270	47 x x x x	798 x x x x	41 1 21 4 2 13	1 0 0 1 1 0	2 0 0 0 0 0	27	x x x x x	x x x x x	S S L L L	7 6 6 4 7	M ML ML MC MC	Mis 3,251
Johnson City E; Williamson; 8S; 3E	1959	Cypress, Mis	2,290	50	30	77	5	0	0	5	x	x	S	20	X	Mis 2,650
• Junction; Gallatin; 9S; 9E	1939	Pennsylvanian Waltersburg, Mis Hardinsburg, Mis Cypress, Mis McClosky, Mis* 2 or more pays	1,150 1,750 2,120 2,275 2,730	250 30 190 10 20 20	15 1 12 0 x x	583 22 543 5 x x	25 3 19 1 2 1	0 0 0 0 0 0	0 0 0 0 0 0	13	x x 35 x x x	x x x x x	S S S S S L	7 14 5 12 9	M ML ML ML ML MC	Mis 2,818
Junction City C; Marion; 2N; 1E	1910 1910 1952	Dykstra (Cuba), Pen Wilson, Pen	510 680	150 110 40	x x 1	x x 6	15 11 4	1 0 1	0 0 0	1	x x x	x x x	S S S	8 x 8	NL NL NL	Dev 3,346
Junction E; Gallatin; 8-9S; 9E	1953	Waltersburg, Mis	2,000	20	2	41	2	0	0	2	37	x	S	14	X	Mis 2,970
Junction N; Gallatin; 8-9S; 9E	1946	Pennsylvanian Cypress, Mis Aux Vases, Mis Spar Mtn, Mis	1,565 2,450 2,725 2,860	160 50 30 60	6 x x x	123 x x x	14 5 3 3	0 0 0 0	0 0 0 0	10	x x x x	x x x x	S S S L	16 10 4 6	M ML ML ML MC	Mis 2,963
Keensburg E; Wabash; 2S; 13W	1939	Ohara, Mis McClosky, Mis	2,705 2,710	120 40 80	Abd 0 0	1947 x x	9 1 2	0 0 0	0 0 0	0	x x 38	x x 0.26	L L L	10 6	M MC MC	Mis 2,802
• Keensburg S; Wabash; 2-3S; 13W	1944	Pennsylvanian Cypress, Mis Ohara, Mis	1,145 2,385 2,715	230 60 130 40	8 x x 0	560 x x 66	18 6 11 1	0 0 0 0	0 0 0 0	13	x x 38 x	x x x x	S S S L	15 9 10	A AL AL AC	Mis 2,879
• Keenville; Wayne; 1S; 5E	1945	Aux Vases, Mis Ohara, Mis Spar Mtn, Mis McClosky, Mis 2 or more pays	2,960 3,050 3,060 3,100	780 250 80 20 460	58 x x x x	2,060 x x x x	56 25 4 1 28 2	0 0 0 0 0 0	0 0 0 0 0 0	32	x x x x 36	x x x x x	S L L L L	20 8 10 7	A AL AC AC AC	Mis 3,267
Keenville E; Wayne; 1S; 5E	1951	McClosky, Mis	3,140	60	3	66	3	0	0	2	x	x	L	10	X	Mis 3,220
Kell; Jefferson; 1S; 3E	1942	McClosky, Mis	2,625	120	3	13	5	0	1	1	39	0.26	L	6	A	Mis 2,720
Kellerville; Adams; 1-2S; 5W	1959	Silurian	637	740	37	90	37	21	2	33	35	x	D	7	AC	St.P 1,075
• Kenner; Clay; 3N; 5-6E	1942	Tar Springs, Mis Benoist, Mis	2,200 2,690	1,150 10 720	111 0 x	1,833 x x	103 1 55	5 0 4	1 0 1	64	x 36	x 0.22	S S	7 10	A AL A	Dev 4,624

* Multiple pay or workover wells only.
† Pool listed in table 19 (gas production).

TABLE 18 — ILLINOIS OIL POOL STATISTICS, 1961 — Continued

Pool, county, location by township and range (•Secondary recovery—see Part II)	Pay zone Name, age, and depth in feet	Year of discovery	Area proved in acres	Oil production M bbls		Number of wells			Character of oil		Pay zone	Deepest test	
				During 1961	To end of 1961	Completed to end of 1961	Com-pleted in 1961	Aban-doned in 1961	Pro-ducting end of year	Gr. API			Sul-fur (%)
Kenner (cont.)	Renault, Mis	2,761	150	x	x	15	4	0	x	x	S	9 A	
	Aux Vases, Mis	2,835	480	x	x	47	4	0	x	x	S	9 AL	
	Spar Mtn, Mis	2,875	60	x	x	3	2	0	x	x	LS	5 AC	
	McClosky, Mis	2,930	60	x	x	3	0	0	x	x	L	7 AC	
	Carper, Mis	4,221	10	x	x	1	0	0	x	x	S	10 A	
	Devonian	4,424	40	x	x	1	0	0	x	x	L	55 A	
	2 or more pays					11	4	0					
• Kenner N; Clay; 3N; 6E	Benoist, Mis	2,755	340	13	859	36	0	4	18	36	x	S	8 A
	McClosky, Mis	2,970	120	x	x	5	0	1	36	36	x	L	6 AC
	McClosky, Mis	2,870	20	Abd 1952	3	1	0	0	0	37	x	L	10 AC
	3,000												
• Kenner W; Clay; 3N; 5E	Cypress, Mis	2,600	350	54	1,927	34	3	1	17	36	x	S	26 A
	Benoist, Mis	2,705	210	x	x	16	1	0	38	38	x	S	9 A
	Renault, Mis*	2,802	20	x	x	1	1	0	x	x	S	10 A	
	Aux Vases, Mis	2,837	60	x	x	6	5	0	x	x	S	24 A	
	McClosky, Mis*	2,870	40	x	x	2	0	0	38	38	x	L	4 A
	2 or more pays					17	2	0					
Keyesport; Clinton; 3N; 2W	Benoist, Mis	1,180	170	5	132	17	1	0	12	x	x	S	8 AL
	1,358												
Kincaid C; Christian; 13-14N; 3W	Hibbard, Dev	1,800	1,640	215	4,132	146	5	0	146	x	x	DS	19 MU
	Silurian	1,874	10	x	x	1	0	0	x	x	x	D	7 X
• King; Jefferson; 3-4S; 3E	Renault, Mis	2,718	1,160	70	2,908	105	0	5	62	x	x	S	A
	Aux Vases, Mis	2,725	1,080	x	x	97	0	5	39	0.17	S	15 AL	
	Ohara, Mis	2,765	160	x	x	8	0	2	x	x	L	10 AC	
	Spar Mtn, Mis	2,815	140	x	x	7	0	1	40	0.16	LS	10 AC	
	McClosky, Mis	2,840	120	x	x	4	0	1	x	x	L	5 AC	
	2 or more pays					10	0	2					
Kimmunity; Marion; 4N; 3E	Benoist, Mis	1,915	40	Abd 1960	24	3	0	0	0	34	x	S	3 A
	Salem, Mis	2,430	20	0	0	1	0	0	x	x	L	7 A	
Kimmunity N; Marion; 4N; 3E	Benoist, Mis	2,040	10	Abd 1954	0.5	1	0	0	0	x	x	S	6 X
	2,301												
LaClede; Fayette; 5N; 4E	Benoist, Mis	2,335	40	1	22	5	0	0	2	36	0.18	S	15 A
	2,608												
Lakewood; Shelby; 10N; 2-3E	Benoist, Mis	1,690	130	3	259	12	0	0	3	38	x	S	7 AL
	Aux Vases, Mis	1,720	80	x	x	7	0	0	32	0.23	S	8 AL	
• Lancaster; Mabash, Lawrence; 1-2N; 13W	Tar Springs, Mis	2,050	1,430	44	2,889	106	1	1	58	x	x	S	3 A
	Bethel, Mis	2,540	910	x	x	73	1	0	0	39	x	S	14 AL
	Ohara, Mis	2,670	40	x	x	2	0	0	x	x	L	10 AC	
	McClosky, Mis	2,690	500	x	x	31	0	0	40	0.28	L	7 AC	
	2 or more pays					1	0	0					

TABLE 18 — ILLINOIS OIL POOL STATISTICS, 1961 — Continued

Pool; county; location by township and range (*Secondary recovery—see Part II)	Pay zone Name, age, and depth in feet	Year of dis- covery	Area proved in acres	Oil production		Number of wells			Character of oil		Pay zone	Deepest test	
				During 1961	To end of 1961	Completed to end of 1961	Com- pleted in 1961	Aban- doned 1961	Pro- ducing end of year	Gr. API			Sul- fur (%)
• Livingston; Madison; 6N; 6W	Pennsylvanian	1948	450	33	563	56	2	1	40	36	x	15 ML	Ord 2,378
Livingston S; Madison; 5-6N; 6W	Pennsylvanian	1950	500	29	205	54	11	1	42	35	x	7 ML	Mis 845
Locust Grove; Wayne; 1N; 9E	Aux Vases, Mis	1951	130	7	175	10	0	0	6		x	S	Mis 3,420
	Ohara, Mis	3,215	80	x	x	7	0	0			x	S	X
	McClosky, Mis*	3,240	40	x	x	2	0	0			x	L	X
	2 or more pays	3,280	20	x	x	1	0	0			x	L	X
			1			1	0	0					
Locust Grove S; Wayne; 1S; 9E	Ohara, Mis	1953	160	7	97	8	0	0	6		x	L	Mis 3,410
	Spar Mtn, Mis	3,248	40	x	x	2	0	0			x	L	X
	McClosky, Mis	3,300	60	x	x	3	0	0			x	L	X
	2 or more pays	3,286	80	x	x	4	0	0			x	L	X
			1			1	0	0					
Long Branch; Saline, Hamilton; 7S; 6E	Palestine, Mis	1950	120	12	260	12	0	0	6		x	S	Mis 3,389
	Cypress, Mis	2,070	20	4	104	2	0	0			x	S	AL
	Aux Vases, Mis	2,745	30	x	x	3	0	0			x	S	AL
	McClosky, Mis	3,095	60	x	x	6	0	0			x	S	AL
	2 or more pays	3,220	40	x	x	2	0	0			x	L	AC
			1			1	0	0					
Long Branch S; Saline; 8S; 6E	Cypress, Mis	1955	10	0	9	1	0	0	1		x	S	Mis 3,210
• Louden; Fayette, Effingham; 6-9N; 2-4E	Cypress, Mis	1937	23,590	13,504	262,880	2,227	5	13	1,484		36	0.25	A
	Bethel, Mis	1,500	23,380	1	1,498	1,498	6	8			38	0.24	A
	Benoist, Mis	1,540	4,190	x	x	316	1	2			39	0.20	A
	Aux Vases, Mis	1,550	9,090	x	x	675	0	3			37	0.17	AL
	McClosky, Mis	1,600	120	x	x	8	0	0			x	L	AC
	Carper, Mis	1,785	20	x	x	1	0	0			x	S	AL
	Geneva, Dev	2,830	30	x	x	2	0	0			x	S	AL
	Trenton, Ord	3,000	2,820	x	x	86	0	1			29	0.48	D
	2 or more pays	3,905	40	x	x	2	0	0			x	L	A
			296			296	1	1					
Louisville N; Clay; 4N; 6E	Aux Vases, Mis	1953	40	Abd	1956	2	1	0	1		x	S	Mis 2,977
	Spar Mtn, Mis	2,755	20	0	2	2	0	0			x	L	ML
		2,812	20	0	0	1	1	0			x	L	ML
Louisville S; Clay; 3N; 6E	Aux Vases, Mis	1960	30	0	0	2	0	0	1		x	S	Mis 3,048
	Ohara, Mis	2,823	10	0	0	1	0	0			x	L	X
	McClosky, Mis	2,893	20	0	0	1	0	0			x	L	X
Lynchburg; Jefferson; 3S; 4E	McClosky, Mis	1951	60	7	259	3	0	1	2		x	L	AC
McKinley; Washington; 3S; 4W	Cypress, Mis	1940	290	19	698	30	0	0	16		x	S	Ord 3,983
	Benoist, Mis	1,060	10	x	x	1	0	0			44	0.18	S
	Silurian	1,000	150	x	x	17	0	0			43	x	L
		2,240	200	x	x	12	0	0					R
Macedonia; Franklin; 5S; 4E	Harrodsburg, Mis	1961	20	3	3	1	1	0	1		x	L	X
• Main C; Crawford, Lawrence, Jasper; 5-8N; 10-14W	Cuba, Pen	1906	86,000	4,156	190,025	10,843	103	194	4,610		32	x	ML
		510	x	x	x	74	0	0				S	ML

TABLE 18 — ILLINOIS OIL POOL STATISTICS, 1961 — Continued

Pool, county, location by township and range (*Secondary recovery—see Part II)	Pay zone Name, age, and depth in feet	Year of dis- covery	Area proved in acres	Oil production		Number of wells			Character of oil	Pay zone	Deepest test			
				M bbls	To end of 1961	Completed to end of 1961	Com- pleted in 1961	Aban- doned 1961				Pro- ducing end of year		
													During 1961	of 1961
• Mattoon; Coles; 11-12N; 7-8E	Cypress, Mis Aux Vases, Mis Spar Mtn, Mis McClosky, Mis Carper, Mis 2 or more pays	1939	5,370 2,050 200 3,940 20 10	287 x x x x x	14,039 x x x x x	449 196 18 341 3 1	0 0 0 0 0 0	15 13 0 3 0 0	38 38 38 38 x	0.16 x 0.21 x x	S S S L S	A A AL A AC A	St. P 4,915	
Mattoon N; Coles; 13N; 7E	Spar Mtn, Mis	1960	220	67	168	11	0	0	40	x	S	12	A	Mis 1,967
Maunie E; White; 6S; 11E	Aux Vases, Mis	1951	60	1	42	5	0	0	x	x	S	20	AF	Mis 3,032
• Maunie N C; White; 5-6S; 10-11E, 14W	Pennsylvanian Waltersburg, Mis Tar Springs, Mis Hardinsburg, Mis* Sample, Mis Bethel, Mis Renault, Mis Aux Vases, Mis Chara, Mis Spar Mtn, Mis McClosky, Mis 2 or more	1941	2,010 10 10 110 40 40 10 950 160 440 40	232 x x x x x x x x x x	3,513 x x x x x x x x x x	174 1 10 10 1 2 30 87 8 22 21	3 0 0 0 0 0 0 1 2 0 0	6 0 0 1 0 0 0 1 2 0 0	x x x x x x x x x x	x x x x x x x x x x	S S S S S S L L L L	A AL AL A AL AL AL AC AC AC AC	Mis 3,260	
• Maunie S C; White; 6S; 10-11E	Bridgeport, Pen Biehl, Pen Degonia, Mis Palestine, Mis Waltersburg, Mis Tar Springs, Mis Cypress, Mis Bethel, Mis* Aux Vases, Mis Spar Mtn, Mis* McClosky, Mis 2 or more pays	1941 1959	1,550 70 10 90 520 20 520 270 10 120 20 40	62 x x x x x x x x x x	6,141 x x x x x x x x x x	146 7 1 9 48 2 52 24 1 10 1 10	0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 0 0 0 1 0 0 0 0 0	x x x x x x x x x x x	x x x x x x x x x x	S S S S S S S S S S S	A AL AL AL AL AL AF AL AL AL AC AC	Mis 3,160	
Mayberry; Wayne; 2-3S; 6E	McClosky, Mis	1941	240	4	335	7	0	0	39	0.16	L	8	AC	Dev 5,377
Mayberry N; Wayne; 2S; 6E	McClosky, Mis	1948	20	Abd 1950	1	1	0	0	x	x	L	2	X	Mis 3,463
• Melrose; Clark; 9N; 13W	Isabel, Pen	1953	110	x	x	11	0	4	x	x	S	10	X	Pen 878
Melrose S; Clark; 9N; 13W	Isabel, Pen	1953	10	Abd 1953	0	1	0	0	x	x	S	7	X	Pen 880
Miletus; Marion; 4N; 4E	Benoist, Mis Aux Vases, Mis McClosky, Mis 2 or more pays	1947	220 100 100 60	9 x x x	299 x x x	16 8 8 3	0	0	x x x	x	S S S	7 7 5	A A A	Dev 3,950

• Mill Shoals; White, Hamilton, Wayne; 2-4S; 7-8E	1939	2,910	138	8735	240	1	3	159	40	0.14	S	11	A	Mis 5,455
Aux Vases, Mis	3,245	2,570	x	x	193	0	1		x		OL	11	A	
Ohara, Mis	3,320	150	x	x	8	0	0		x		LS	8	AC	
Spar Mtn, Mis	3,345	260	x	x	13	1	1		x		OL	5	AC	
McClosky, Mis	3,375	740	x	x	38	0	0		x		L	10	AC	
St. Louis, Mis	3,546	20	x	x	1	0	0		x		L	4	A	
Salem, Mis*	3,970	20	x	x	1	1	0		x		L	10	A	
Harrodsburg, Mis	4,110	20	x	x	1	0	0		x		L	10	A	
2 or more pays		16			16	1	0							
Mills Prairie; Edwards; 1N; 14W	2,925	20	Abd 1952	2	1	0	0	0	x		L	5	MC	Mis 3,010
Mills Prairie; Edwards; 1N; 14W	2,925	40	Abd 1956	5	2	0	0	0	x		L	5	MC	Mis 3,003
Mitchellsville; Saline; 10S; 6E	1,330	20	1	14	2	0	0	2	x		S	6	X	Mis 2,452
	1,505	10	x	x	1	0	0		x		S	6	X	
		10	1	14	1	0	0		x		S	9	X	
Mode; Shelby; 10N; 4E	1,682	30	22	22	3	3	0	3	x		S	12	X	Dev 3,236
Paint Creek, Mis	1,742	30	x	x	3	3	0		x		S	12	X	
Bethel, Mis*	1,772	20	x	x	2	2	0		x		S	8	X	
Aux Vases, Mis*	1,772	10	x	x	1	1	0		x		S	8	X	
2 or more pays		2			2	2	0							
Mt. Auburn C; Christian; 15N; 1-2W	1,890	6,600	498	4,240	330	24	22	239	37	0.28	L	15	MU	Trn 2,567
• Mt. Carmel; Wabash; 1N, 1S; 12W	1,370	4,640	269	12,745	458	3	25	243	34	x	S	20	AL	A Dev 4,237
Bridgeport, Pen	1,470	60	x	x	5	0	2		x		S	20	AL	
Bieh1, Pen	1,520	720	x	x	48	1	4		x	0.28	S	15	AL	
Jordan, Pen	1,580	50	x	x	5	0	1		x		S	10	AL	
Palestine, Mis	1,690	50	x	x	4	0	0		x		S	10	AL	
Waltersburg, Mis*	1,790	10	x	x	1	0	0		x		S	10	AL	
Tar Springs, Mis	2,020	320	x	x	26	2	1		x		S	13	AL	
Jackson, Mis*	2,025	10	x	x	1	0	0		x		S	25	AL	
Cypress, Mis	2,095	3,480	x	x	297	2	8		x	0.17	S	5	AL	
Sample, Mis	2,110	40	x	x	3	0	0		x		S	7	AL	
Bethel, Mis	2,320	60	x	x	6	0	1		x		S	16	AL	
Ohara, Mis	2,350	260	x	x	14	0	0		x		OL	5	AC	
Spar Mtn, Mis	2,360	240	x	x	12	0	0		x	0.26	S	5	AL	
McClosky, Mis		1,300	x	x	63	0	6		x	0.42	OL	6	AC	
2 or more pays		48			48	1	4							
Mt. Erie N; Wayne; 1N; 9E	1,944	200	2	384	13	0	1	4					M	Mis 3,366
Aux Vases, Mis	3,110	60	x	x	5	0	1		x		S	8	ML	
Ohara, Mis	3,170	40	x	x	2	0	0		x		L	6	MC	
McClosky, Mis	3,240	100	x	x	5	0	0		x		L	5	MC	
Mt. Olive; Montgomery; 8N; 5W	605	50	x	x	5	0	0	0	33	0.16	S	6	A	Sil 1,878
Mt. Vernon; Jefferson; 3S; 3E	2,665	230	8	370	10	0	0	2	x		S	8	A	Mis 3,009
	2,750	50	1	x	5	0	0		x		S	8	A	
	2,800	20	0	x	1	0	0		x		L	6	AC	
		180	7	x	5	0	0		x	0.18	L	7	AC	
					1	0	0							
Mt. Vernon N; Jefferson; 2S; 3E	2,675	40	4	41	2	0	0	2	x		L	6	X	Mis 2,751
Murdock; Douglas; 16N; 10E	370	10	Abd 1957	x	3	2	0	2	36	x	S	16	X	Pen 424
Nason; Jefferson; 3S; 2E	2,790	20	1	32	1	0	0	1	x		S	12	ML	Mis 3,925

* Multiple pay or workover wells only.
† Pool listed in table 19 (gas production).
‡ Illinois portion only.

TABLE 18 — ILLINOIS OIL POOL STATISTICS, 1961 — Continued

Pool, county, location by township and range (*Secondary recovery—see Part II)	Pay zone Name, age, and depth in feet	Year of discovery	Area proved in acres	Oil production M bbls		Number of wells			Character of oil	Pay zone	Deepest test				
				During 1961	To end of 1961	Completed to end of 1961	Completed in 1961	Abandoned in 1961				Producing end of year	Gr. API (%)		
New Baden E; Clinton; 1N; 5W	Silurian 1,935	1958	280	23	70	14	5	0	13	x	L	15	R	S11	2,200
New Bellair; Crawford; 8N; 13W	60	1942	60	x	10	6	1	0	3				M	Dev	2,801
	Isabel, Pen 650		20	Abd 1948; rev 1952; abd 1954; rev 1956	x	2	0	0		x	S	3	ML		
	Pennsylvanian 1,165		20	0	10	2	0	0		29	0.30	S	10	ML	
	Aux Vases, Mis 1,280		20	x	x	2	1	0		x	x	S	20	M	
New City; Sangamon; 14N; 4W	Silurian 1,730	1954	120	2	54	6	1	1	3	39	x	L	11	MU	S11 1,855
New Douglas S; Bond; 6N; 5W	Pennsylvanian 640	1957	20	Abd 1960	3	2	0	0	0	x	S	7	X	Pen	705
* New Harmony C; White, Wabash, Edwards; 1N, 1-5S; 13-14W	Jamestown, Pen 720	1939	25,630	5,252	110,198	2,299	24	73	1,309	32	x	S	13	A	Shak 7,682
	Mansfield, Pen*		x	x	x	3	0	0		x	x	S	x	AL	
	Bridgeport, Pen		x	x	x	3	0	0		x	x	S	7	AL	
	Biehl, Pen		x	x	x	94	3	13		37	x	S	20	AL	
	Jordan, Pen*		x	x	x	10	0	0		x	x	S	x	AL	
	Degonia, Mis		x	x	x	6	0	2		x	x	S	10	AL	
	Clore, Mis		x	x	x	22	0	3		x	x	S	10	AL	
	Palestine, Mis		250	x	x	96	2	1		34	0.40	S	20	AL	
	Waltersburg, Mis		890	x	x	183	2	2		35	0.19	S	26	ALF	
	Tar Springs, Mis		1,570	x	x	1	0	0		x	x	L	10	ALF	
	Hardinsburg, Mis*	1958	10	x	x	596	6	18		35	x	S	20	ALF	
	Cypress, Mis		8,380	x	x	58	1	2		34	0.24	S	27	ALF	
	Sample, Mis		x	x	x	796	2	29		34	0.19	S	15	ALF	
	Bethel, Mis		x	x	x	563	6	23		x	x	OL	6	AC	
	Aux Vases, Mis		5,680	x	x	31	3	2		x	x	LS	10	AC	
	Ohara, Mis		2,900	x	x	26	1	2		x	x	OL	8	AC	
	Spar Mtn, Mis		2,910	x	x	243	2	3		35	0.33	OL	16	AC	
	McClosky, Mis		2,925	x	x	1	0	1		x	x	L	6	AC	
	Salem, Mis	1959	20	x	x	3	0	0		x	x	L	6	AC	
	3,364		60	x	x	363	1	22							
	Harrodsburg, Mis														
	2 or more pays														
New Harmony S (Ill.); White; 5S; 14W	Waltersburg, Mis 2,250	1941	90	1	83	8	0	0	1				A	Mis	3,207
	Tar Springs, Mis 2,350		20	x	x	3	0	0		x	x	S	18	AF	
	Cypress, Mis 2,670		10	x	0	1	0	0		x	x	S	16	AF	
	Bethel, Mis 2,815		20	0	0	1	0	0		x	x	S	8	AF	
	Aux Vases, Mis 3,005		10	0	2	1	0	0		x	x	S	10	AF	
	McClosky, Mis 3,010		40	x	x	1	0	0		x	x	L	5	AF	
	2 or more pays														
* New Harmony S (Ind.); White; 5S; 14W	Degonia, Mis* 1,850	1946	60	x	446	6	0	0	4				T	Mis	3,068
	Palestine, Mis 1,955		20	x	x	2	0	0		x	x	S	8	TF	
	Waltersburg, Mis 2,120		30	x	x	1	0	0		x	x	S	10	TF	
	2 or more pays		30	x	x	3	0	0		x	x	S	30	TF	
						2	0	0							
* New Haven C; White; 7S; 10-11E	Tar Springs, Mis 2,105	1941	600	126	1,622	49	3	0	40				A	Mis	2,980
	Hardinsburg, Mis 2,245		190	x	x	18	3	0		36	0.27	S	12	AF	
	Cypress, Mis 2,445		10	x	x	1	0	0		36	x	S	8	AF	
	Aux Vases, Mis 2,720		230	x	x	17	0	0		36	x	S	12	AF	
			110	x	x	8	0	0		36	x	S	15	AF	

	Ohara, Mis	2,799	1959	40	x	x	2	0	0	0	x	x	L	12	A
	Spar Mtn, Mis	2,828	1960	20	x	x	1	0	0	0	x	x	L	15	A
	McClosky, Mis	2,820		120	x	x	5	0	0	0	36	x	OL	6	AC
	2 or more pays						6	0	0	0					
	New Hebron E; Crawford; 6N; 12W	1,555	1954	40	x	0.5	4	0	0	0	1	x	S	4	X Mis 1,571
	New Memphis; Clinton; 1N, 1S; 5W	1,980	1952	760	102	1,636	36	0	0	0	36	x	L	x	R Sil 2,240
	New Memphis E; Washington; 1S; 4W	2,170	1957	40	1	6	2	0	0	0	2	x	L	12	X Ord 3,070
	New Memphis N; Clinton; 1N; 5W	2,050	1954	80	2	27	4	0	0	0	4	x	L	15	X Ord 2,915
	New Memphis S; Clinton, Washington; Silurian	2,000	1952	40	0	1	2	0	1	0	27	x	L	25	X Ord 2,914
	1S; 5W														
	Abd 1952; rev 1956; abd 1961														
	Newton; Jasper; 6N; 9E	2,950	1944	100	1	91	5	0	1	1	37	x	L	6	MC Mis 3,040
	Newton N; Jasper; 7N; 10E	2,855	1945	40	0	7	6	0	1	3	x	x	L	5	MC Mis 2,941
	Abd 1948; rev 1960														
	Newton W; Jasper; 6-7N; 9E	3,000	1947	120	Abd	1953	1	6	3	0	3	x	L	7	MC Mis 3,102
	Noble W; Clay; 3N; 8E	3,035	1951	20	Abd	1959	9	1	0	0	0	x	L	8	X Mis 3,149
	• Oakdale; Jefferson; 2S; 4E														
	Aux Vases, Mis	2,860	1956	250	74	408	16	2	3	12	x	x	S	35	X 3,767
	McClosky, Mis	2,985	1956	60	x	x	3	0	1	0	x	x	L	5	X
	2 or more pays														
	Oakdale N; Jefferson; 2S; 4E	2,932	1960	240	228	228	12	11	0	12	x	x	OL	5	X Mis 3,077
	Oakley; Macon; 16N; 3E	2,285	1954	180	1	23	9	2	0	5	37	x	L	5	X Dev 2,328
	• Oak Point; Clark, Jasper; 8-9N; 14W														
	Isabel, Pen	560	1952	710	9	316	53	0	0	34	x	x	S	10	ML Dev 2,691
	Aux Vases, Mis	1,185	1955	680	9	316	51	0	0	0	x	x	S	17	X
	Carper, Mis	2,220		20	0	x	1	0	0	0	x	x	L	x	ML
	Oak Point W; Clark, Cumberland; 9N; 11E, 14W	1,190	1955	90	1	13	8	0	2	6	x	x	S	8	X Mis 1,560
	• Odin; Marion; 2N; 1-2E														
	Cypress, Mis	1,750	1945	290	28	1,746	30	0	0	22	38	x	S	13	AL Dev 3,597
	McClosky, Mis	2,085	1957	20	5	30	1	0	0	0	x	x	L	12	A
	Okawville; Washington; 1S; 4W	2,325	1951	80	3	50	4	0	0	3	x	x	L	3	R Sil 2,603
	Okawville N; Washington; 1S; 4W	2,235	1955	100	2	24	5	0	0	5	41	x	L	x	X Sil 2,498
	• Old Ripley; Bond; 5N; 4W														
	Pennsylvanian	600	1954	790	34	291	70	0	0	66	34	x	S	17	A Dev 2,221
	• Olney C; Richland, Jasper; 4-5N; 10E														
	Aux Vases, Mis	2,918	1938	4,660	196	6,922	186	9	7	92	x	x	S	A	Mis 3,289
	Ohara, Mis	3,005	1960	50	x	x	5	0	1	0	x	0.19	L	6	A
	Spar Mtn, Mis	3,050		x	x	x	15	0	3	0	37	0.19	L	5	A
	McClosky, Mis	3,100		x	x	x	48	6	0	37	0.19	L	6	A	
	2 or more pays														
	Abd 1952; rev 1956; abd 1961														
	Olney S; Richland; 3N; 10E	1,050	1937	1,050	20	822	50	0	0	35	50	0	0	M	Dev 4,910

* Multiple pay or workover wells only.

Illinois portion only.

TABLE 18 — ILLINOIS OIL POOL STATISTICS, 1961 — Continued

Pool; county; location by township and range (*Secondary recovery—see Part II)	Pay zone Name, age, and depth in feet	Year of dis- covery	Area proved in acres	Oil production M bbls		Number of wells			Character of oil		Pay zone Kind of rock, av. thickness in feet, Structure	Deepest test Zone and depth (ft)		
				During 1961	To end of 1961	Completed to end of 1961	Com- pleted in 1961	Aban- doned 1961	Pro- ducing end of year	Gr. API (%)			Sul- fur (%)	
Olney S (cont.)	Spar Mtn, Mis McClosky, Mis 2 or more pays	3,100 3,115	740 680	x x	x x	33 31 17	0 0 0	0 0 0	x x x	L L L	4 3 3	MC MC MC		
• Omaha; Gallatin; 7-8S; 8E	Jake Creek, Pen Pennsylvanian Biehl, Pen Palestine, Mis Tar Springs, Mis Hardinsburg, Mis Cypress, Mis Paint Creek, Mis* Bethel, Mis* Aux Vases, Mis Chara, Mis Spar Mtn, Mis McClosky, Mis 2 or more pays	385 580 1,335 1,700 1,900 2,179 2,402 2,450 2,570 2,730 2,734 2,722 2,800	1,700 210 40 70 390 90 60 100 30 670 300 50 120	1940 x x x x x x x x x x x x	169 3,670 x x x x x x x x x x x	157 15 5 5 27 7 6 10 3 66 18 5 15	35 0 0 0 2 0 0 1 0 12 8 3 6 10	0 0 0 0 2 0 0 1 0 1 1 1 6 0	x x x x 0.24 x x x x x x x x	S S S S S S S S S S L S L	20 10 10 15 18 18 12 14 8 8 10	D D D D D D D D D D D D D	Mis 3,408	
Omaha E; Gallatin; 8S; 8E	Cypress, Mis Aux Vases, Mis Chara, Mis Spar Mtn, Mis McClosky, Mis	2,530 2,790 2,855 2,942 2,884	180 30 10 60 20 60	1946 1957 1960 1958	6 0 0 4 2	54 12 0 24 19	11 3 1 3 3	0 0 0 0 0	x x x 37 x	S S S L L	2 2 0 0 0	4 4 0 0 0	M M M MCF MCF	Mis 3,000
Omaha S; Gallatin, Saline; 8S; 7-8E	Cypress, Mis Aux Vases, Mis Spar Mtn, Mis	2,535 2,870 2,865	90 60 10 20	1951 1955	0.5 0.5 0 0	24 18 0 5	7 5 1 1	0 0 0 0	x x x x	S S S L	0 0 0 0	2 0 0 0	N NL N NC	Mis 3,035
Omaha W; Saline; 7-8S; 7E	Cypress, Mis Aux Vases, Mis McClosky, Mis 2 or more pays	2,600 2,800 2,910	80 50 20 20	1950	7 x x 0	165 x x 1	7 5 2 1	0 0 0 0	x x x x	S S S L	0 0 0 0	5 0 0 0	A AL AL AC	Mis 3,025
Omega; Marion; 3N; 4E	McClosky, Mis	2,490	40	1946	Abd 1949	5	2	0	x	L	0	0	D	Mis 2,584
Opdyke; Jefferson; 3S; 4E	McClosky, Mis	3,074	20	1961	x	x	1	1	x	OL	0	1	X	Mis 3,175
Orchardville; Wayne; 1N; 5E	Sample; Mis Aux Vases, Mis Ohara, Mis McClosky, Mis	2,655 2,800 2,880 2,905	170 10 110 40	1950 1958	7 x 7 0	118 x 90 5	14 1 10 2	4 0 3 0	x x x x	S S S L	0 0 0 0	13 0 0 0	A A AL AC	Mis 3,043
Orchardville N; Wayne; 1N; 5E	Paint Creek, Mis	2,655	10	1956	1	12	1	0	x	S	0	1	X	Dev 4,684
• Oskaloosa; Clay; 3-4N; 5E	Benoist, Mis Aux Vases, Mis McClosky, Mis 2 or more pays	2,595 2,643 2,755	400 370 70 140	1950 1958 1957	110 x x x	2,136 x x x	38 37 7 7	1 1 0 1	38 x x x	S S S L	5 5 0 0	24 0 0 0	A A A A	Mis 2,961

TABLE 18 — ILLINOIS OIL POOL STATISTICS, 1961 — Continued

Pool, county, location by township and range (•Secondary recovery—see Part II)	Pay zone Name, age, and depth in feet	Year of dis- covery	Area proved in acres	Oil production M.bbls		Number of wells			Character of oil		Pay zone Kind of rock, av. thickness in feet, Structure	Deepest test Zone and depth (ft)
				During 1961	To end of 1961	Completed to end of 1961	Com- pleted in 1961	Aban- doned 1961	Pro- ducing year	Gr. API		
Patoka E; Marion; 4N; 1E		1941	600	63	4,413	64	0	0	0	48		Ord 4,178
	Cypress, Mis	1,340	500	x	x	54	0	0	0	36	0.18	S 16 D
	Benoist, Mis	1,465	60	x	x	5	0	0	0	36	0.23	S 10 D
	McClosky, Mis	1,635	80	x	x	3	0	0	0	x	x	L 8 D
	Geneva, Dev	2,950	40	x	x	2	0	0	0	35	x	D 30 R
Patoka S; Marion; 3N; 1E		1953	550	65	700	50	2	0	0	47		Mis 1,728
	Cypress, Mis	1,350	410	x	x	37	1	0	0	x	x	S 10 A
	Benoist, Mis	1,461	120	x	x	12	1	0	0	x	x	S 15 A
	Spar Mtn, Mis	1,624	20	x	x	1	0	0	0	x	x	S 5 A
Patoka W; Fayette; 4N; 1W		1950	200	11	283	19	1	0	0	14	32	x S 6 A
	Benoist, Mis	1,380	200	11	283	19	1	0	0	14	32	x S 6 A
• Phillipstown C; White, Edwards; 3-5S; 10-11E, 14W		1939	6,470	652	19,615	513	16	9	9	345		A Dev 5,350
	Anvil Rock, Pen	795	10	x	x	1	0	0	0	36	x	S 10 Af
	Clark-Bridgeport, Pen	1,350	x	x	x	13	0	0	0	36	x	S 10 Af
	Pennsylvanian	1,450	x	x	x	9	0	0	0	36	x	S 10 Af
	Buchanan, Pen	1,550	x	x	x	24	0	0	0	36	x	S 15 Af
	Biehl, Pen	1,875	x	x	x	50	2	7	7	36	0.22	S 15 Af
	Kinkaid, Mis	1,954	10	x	x	1	1	0	0	x	x	S 17 Af
	Degonia, Mis	1,975	500	x	x	49	1	0	0	35	x	S 15 Af
	Clare, Mis	2,010	120	x	x	14	0	0	0	34	x	S 12 Af
	Palestine, Mis	2,050	60	x	x	8	0	0	0	x	x	S 11 Af
	Waltersburg, Mis	2,280	60	x	x	4	0	0	0	x	x	S 11 Af
	Tar Springs, Mis	2,295	950	x	x	79	0	2	2	35	x	S 15 Af
	Cypress, Mis	2,720	540	x	x	41	5	0	0	36	x	S 12 Af
	Paint Creek, Mis	2,780	80	x	x	7	0	0	0	x	x	S 9 Af
	Bethel, Mis	2,810	1,000	x	x	104	4	3	3	37	x	S 15 Af
	Aux Vases, Mis	2,880	780	x	x	65	0	0	0	37	x	S 15 Af
	Ohara, Mis	3,010	500	x	x	26	0	0	0	x	x	L 10 ACf
	Spar Mtn, Mis	2,960	630	x	x	6	1	1	1	38	x	LS 10 ACf
	McClosky, Mis	3,000	1,190	x	x	62	6	0	0	36	0.21	L 6 ACf
	2 or more pays					81	9	2	2			
Phillipstown S; White; 5S; 10E		1951	80	x	x	6	3	1	0	3		Mis 3,161
	Tar Springs, Mis	2,345	10	x	x	1	0	0	0	x	x	S 10 MF
	Aux Vases, Mis	2,985	30	x	x	3	2	0	0	x	x	S 10 MF
	Spar Mtn, Mis	3,083	20	x	x	1	1	1	1	x	x	L 8 MF
	McClosky, Mis	3,065	20	x	x	1	0	0	0	x	x	L 4 M
Pinkstaff; Lawrence; 4N; 11W		1951	20	Abd	1951	0.1	0	0	0	0	x	Mis 1,797
	McClosky, Mis	1,735	20	Abd	1951	0.1	0	0	0	0	x	Mis 1,797
Pinkstaff E; Lawrence; 4N; 11W		1955	20	Abd	1961	x	0	1	0	0	x	Mis 1,644
	McClosky, Mis	1,640	20	Abd	1961	x	0	1	0	0	x	Mis 1,644
Pixley; Clay; 4N; 8E		1959	20	Abd	1960	x	0	0	0	0	x	Mis 3,121
	Cypress, Mis	2,680	20	Abd	1960	x	0	0	0	0	x	Mis 3,121
Plainview; Macoupin; 9N; 8W		1942	10	0	2	1	0	0	0	0	34	x S 5 X Pen 513
	Pennsylvanian	410	10	0	2	1	0	0	0	0	34	x S 5 X Pen 513
Plainview S; Macoupin; 8N; 8W		1959	10	x	x	1	0	0	0	1	x	x S 8 X Pen 642
	Pennsylvanian	444	10	x	x	1	0	0	0	1	x	x S 8 X Pen 642
Posen; Washington; 3S; 2W		1952	80	2	67	4	0	1	1	1	x	A Ord 3,954
	Trenton, Ord	3,900	80	2	67	4	0	1	1	1	x	A Ord 3,954
Posen N; Washington; 3S; 2W		1953	10	Abd	1959	4	1	0	0	0	x	AC Ord 4,112
	Trenton, Ord	4,015	10	Abd	1959	4	1	0	0	0	x	AC Ord 4,112

TABLE 18 — ILLINOIS OIL POOL STATISTICS, 1961 — Continued

Pool; county; location by township and range (*Secondary recovery—see Part II)	Pay zone Name, age, and depth in feet	Year of dis- covery	Area proved in acres	Oil production M bbls		Number of wells			Character of oil		Pay zone Kind of rock, av. thickness in feet, Structure	Deepest test Zone and depth (ft)	
				During 1961	To end of 1961	Completed to end of 1961	Com- pleted in 1961	Aban- doned in 1961	Pro- ducing end of year	Gr. fur API (%)			Sul- fur (%)
Rinard N (cont.)	McClosky, Mis	3,140	200	4	218	9	0	1	x	x	L 5	MC	
Ritter; Richland; 3N; 10-11E	Ste. Gen, Mis	3,215	120	20	135	6	2	0	x	x	L 5	Mis	3,925
				Abd 1960; rev 1961									
Ritter N; Richland; 3N; 11E	Ohara, Mis	3,203	220	19	141	11	0	1	x	x	L 6	X	Mis 3,288
	Spar Mtn, Mis	3,215	20	x	x	1	0	0	x	x	L 6	X	
	McClosky, Mis	3,205	60	x	x	3	0	1	x	x	L 5	X	
	2 or more pays		1960			1	0	0					
Roaches; Jefferson; 2S; 1E	Benoist, Mis*	2,000	200	3	616	13	0	0	x	x	S 5	A	Dev 3,840
	Ohara, Mis	2,170	30	x	x	3	0	0	37	0.22	L 5	AL	
	Spar Mtn, Mis	2,190	160	x	x	8	0	0	37	0.22	L 12	AC	
	McClosky, Mis	2,250	120	x	x	6	0	0	37	0.22	L 4	AC	
	2 or more pays					3	0	0					
• Roaches N; Jefferson; 2S; 1E	Benoist, Mis	1,925	350	26	1,459	34	0	0	x	x	S 7	A	Mis 2,283
	Spar Mtn, Mis	2,115	80	x	x	32	0	0	x	x	L 8	AC	
	2 or more pays					2	0	0					
Roby; Sangamon; 15N; 3W	Burlington-Keokuk, Mis	1,336	180	69	114	11	3	0	x	x	L x	MU	
	Silurian	1,775	160	69	114	10	2	0	38	x	L 5	MU	
	Hibbard, Dev	1,655	20	0.5	2	1	0	0	1	x	S 5	MU	Trn 2,259
• Rochester; Wabash; 2S; 13W	Pennsylvanian	1,300	330	166	1,235	45	5	2	x	x	S 16	M	Mis 2,810
	Waltersburg, Mis	1,940	180	x	x	18	4	0	x	x	S 20	ML	
	2 or more pays		210	x	x	27	1	0					
						3	0	0					
• Roland C; White, Gallatin; 5-7S; 8-9E	Pennsylvanian	1,410	9,340	1,272	40,385	869	9	6	36	x	S 10	A	Dev 5,225
	Degonia, Mis	2,065	60	x	x	5	0	0	x	x	S 7	A	
	Paletine, Mis	2,085	30	x	x	3	1	0	x	x	S 2	A	
	Waltersburg, Mis	2,200	2,130	x	x	117	2	1	36	0.25	S 15	AL	
	Tar Springs, Mis	2,300	370	x	x	33	1	2	37	x	S 15	AL	
	Hardsburg, Mis	2,550	1,540	x	x	143	0	1	36	0.30	S 20	AL	
	Golconda, Mis*	2,505	10	x	x	1	0	0	x	x	S 5	A	
	Cypress, Mis	2,700	1,550	x	x	129	3	2	32	0.12	S 15	AL	
	Paint Creek, Mis	2,800	360	x	x	30	0	0	36	x	S 12	AL	
	Bethel, Mis	2,800	1,150	x	x	77	2	2	32	0.20	S 12	AL	
	Aux Vases, Mis	3,020	2,610	x	x	237	5	2	32	0.12	S 13	AL	
	Ohara, Mis	3,050	600	x	x	23	0	0	36	x	OL	6	AC
	Spar Mtn, Mis	3,070	620	x	x	24	0	0	37	x	L 6	AC	
	McClosky, Mis		1,760	x	x	77	0	0	37	0.20	L 6	AC	
	St. Louis, Mis*		20	x	x	1	0	0	x	x	L x	AC	
	2 or more pays					115	4	3					
Roland W; Saline; 7S; 7E	Aux Vases, Mis	2,935	10	Abd 1959	22	1	0	0	x	x	S 15	ML	Mis 3,161

Location	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
Ruark; Lawrence; 2N; 12-13W	1,600	1,941	440	24	2,364	43	1	0	0	31	33	x	S	10	AL	2,442																																																																																																																																																
	320		320	x	x	33	0	0	0		x	S	11	AL																																																																																																																																																		
	2,075		80	x	x	6	0	0	0		x	S	7	AL																																																																																																																																																		
	2,145		30	x	x	3	0	0	0		x	S	5	AL																																																																																																																																																		
	2,275		20	0	0	1	0	0	0		x	L	5	AC																																																																																																																																																		
						1	0	0	0																																																																																																																																																							
Ruark W C; Lawrence; 2N; 13W	1,780	1,947	610	14	857	56	0	0	0	50	x	S	10	ML	2,633																																																																																																																																																	
	2,165		50	x	x	6	0	0	0		x	S	9	ML																																																																																																																																																		
	2,220		10	x	x	1	0	0	0		x	S	20	ML																																																																																																																																																		
	2,350		440	x	x	41	0	0	0		x	S	5	ML																																																																																																																																																		
	2,390		80	x	x	4	0	0	0		x	L	5	MC																																																																																																																																																		
	2,400		40	x	x	2	0	0	0		x	L	5	MC																																																																																																																																																		
			280	x	x	14	0	0	0		x	L	3	MC																																																																																																																																																		
						11	0	0	0																																																																																																																																																							
Rural Hill N; Hamilton; 5S; 5E	2,930	1,949	90	12	176	8	0	1	4		x	S	10	ML	3,468																																																																																																																																																	
	3,325		60	Abd 1950; rev 1956	7	0	1	1			x	S	10	ML																																																																																																																																																		
			20	0	1	1	0	0	0		x	L	8	MC																																																																																																																																																		
Rushville NW; Schuyler; 2N; 2W	669	1,960	20	0	0.5	1	0	0	0	1	x	L	3	AC	695																																																																																																																																																	
Russellville Gas; Lawrence; 4-5N; 10-11W	1,560	1,937	40	0	12	2	0	0	0	0	x	L	7	AC	3,133																																																																																																																																																	
Russellville W; Lawrence; 5N; 11W	1,565	1,955	20	Abd 1957	2	1	0	0	0	0	x	L	22	X	1,646																																																																																																																																																	
St. Francisville; Lawrence; 2N; 11W	1,845	x	710	x	x	83	1	1	41	32	x	S	6	ML	2,164																																																																																																																																																	
St. Francisville E; Lawrence; 2N; 11W	1,260	1,941	290	27	493	26	0	4	21		x	S	8	AL	1,960																																																																																																																																																	
	1,300		30	x	x	3	0	1			x	S	6	AL																																																																																																																																																		
	1,460		10	x	x	1	0	1			x	S	6	AL																																																																																																																																																		
	1,605		40	x	x	3	0	1			x	S	15	AL																																																																																																																																																		
	1,750		270	x	x	18	0	1			x	S	20	A																																																																																																																																																		
											37	0.21	S	20	A																																																																																																																																																	
St. Jacob; Madison; 3N; 6W	2,260	1,942	1,120	47	3,058	53	0	0	0	39	40	0.23	L	17	A	5,019																																																																																																																																																
St. Jacob E; Madison; 3N; 6W	1,840	1,955	20	Abd 1957	1	1	0	0	0	0	x	S	x	U	2,600																																																																																																																																																	
St. James; Fayette; 5-6N; 2-3E	1,555	1,938	1,940	328	15,483	210	1	1	139		x	L	15	A	3,457																																																																																																																																																	
	1,580		10	0	x	1	0	0			x	S	16	A																																																																																																																																																		
	1,746		1,890	x	x	198	0	0			34	0.31	S	8	A																																																																																																																																																	
	1,860		10	x	x	1	0	0			x	S	16	A																																																																																																																																																		
	3,082		190	x	x	10	0	0			38	x	L	16	A																																																																																																																																																	
			10	x	x	1	0	0			x	S	5	A																																																																																																																																																		
St. Paul; Fayette; 5N; 3E	1,900	1,941	260	9	619	18	0	0	0	10	34	0.23	S	9	A	3,570																																																																																																																																																
	2,080		240	9	619	17	0	0	0		x	L	6	A																																																																																																																																																		
			20	0	0	1	0	0	0		x	L	6	A																																																																																																																																																		
Ste. Marie; Jasper; 5N; 10-11E, 14W	2,900	1,941	1,360	57	1,316	53	0	4	29	38	0.14	L	8	AC	3,034																																																																																																																																																	
Ste. Marie E; Jasper; 6N; 14W	2,685	1,949	80	Abd 1951	1	4	0	0	0	0	x	L	10	MC	3,018																																																																																																																																																	
Ste. Marie W; Jasper; 5-6N; 10E		1,949	240	20	254	14	0	0	0	12																																																																																																																																																						

* Multiple pay or workover pay wells only.
† Pool listed in table 19 (gas production).
‡ Illinois portion only.

TABLE 18 — ILLINOIS OIL POOL STATISTICS, 1961 — Continued

Pool, county, location by township and range (*Secondary recovery—see Part II)	Pay zone Name, age, and depth in feet	Year of dis- covery	Area proved in acres	Oil production		Number of wells			Character of oil	Pay zone Kind of rock, av. thickness in feet, Structure	Deepest test Zone and depth ft)	
				M bbls		Completed to end of 1961	Com- pleted in 1961	Aban- doned in 1961				Pro- ducing end of year
				During 1961	To end of 1961							
Ste. Marie W (cont.)	Aux Vases, Mis*	1949	10	x	x	1	0	0	38	S	ML	
	McClosky, Mis	2,815	240	x	x	14	0	0	38	L	MC	
• Sailor Springs Cen; Clay;	Tar Springs, Mis	1948	70	0.5	5	5	0	2	x	S	M	
	Spar Mtn, Mis	3,015	40	0	0.5	3	0	1	x	L	Mis 3,128	
• Sailor Springs C; Clay, Effingham, Jasper; 3-6N; 6-8E	Tar Springs, Mis	1938	15,880	1,298	34,962	1,044	45	35	37	S	A	
	Glen Dean Mis*	2,340	710	x	x	49	0	1	0.17	L	A	
	Cypress, Mis	2,390	10	x	x	1	0	0	x	L	A	
	Bethel, Mis	2,550	8,710	x	x	524	8	9	39	S	A	
	Aux Vases, Mis	2,740	390	x	x	31	3	0	0.28	S	A	
	Ohara, Mis	2,825	1,110	x	x	107	8	7	36	S	A	
	Spar Mtn, Mis	2,900	300	x	x	12	1	0	39	OL	A	
	McClosky, Mis	2,925	2,140	x	x	105	10	9	37	LS	A	
	2 or more pays					252	22	12	38	OL	A	
						73	7	2				Dev 4,486
	Sailor Springs E; Clay; 4N; 8E	Cypress, Mis	1944	140	0	64	12	0	1	x	S	D
McClosky, Mis		3,020	40	0	2	2	0	0	x	L	D	
Sailor Springs N; Clay; 4N; 8E	Spar Mtn, Mis	1948	100	0	5	5	0	0	x	L	M	
	McClosky, Mis	3,030	80	0	2	3	0	0	x	L	Mis 3,126	
2 or more pays												
• Salem C; Marion, Jefferson; 1-2N, 1S; 1-2E	Benoist, Mis	1938	14,860	9,795	290,106	2,808	11	25	38	S	A	
	Aux Vases, Mis	1,780	x	x	x	613	0	5	39	S	A	
	Ohara, Mis	1,825	x	x	x	801	10	6	0.21			
	Spar Mtn, Mis	2,075	x	x	x	2	0	0	37			
	McClosky, Mis	2,100	x	x	x	147	1	4	37			
	St. Louis, Mis*	2,050	x	x	x	880	0	11	37			
	Salem, Mis	2,160	x	x	x	15	0	0	37			
	Devonian	3,440	x	x	x	274	0	3	37			
	Trenton, Ord	4,500	x	x	x	638	0	3	42			
	2 or more pays					97	0	0	39			
						736	0	8				St. P 5,655
	Samsville; Edwards; 1N; 11E	Waltersburg, Mis	1942	30	Abd 1952	1	3	0	0	x	S	A
Bethel, Mis		2,900	180	3	242	16	0	0	x			
Samsville N; Edwards; 1N; 14W	Ohara, Mis	1955	20	Abd 1956	3	1	0	0	x			
	Samsville W; Edwards; 1N; 10E	3,190	120	7	161	5	0	1	x			
Samsville NW; Edwards; 1N; 10E	Spar Mtn, Mis*	3,260	60	x	x	3	0	0	x			
	McClosky, Mis	3,275	40	x	x	2	0	0	x			
Sandoval; Marion; 2N; 1E		1,400	500	21	5,876	153	0	0	x			
			20	0	0	1	0	0	x			

Benoist, Mis Geneva, Dev 2 or more pays	1,540 2,920	460 390	0 21	2,705 3,171	123 28	0 0	0 0	0 0	0 0	35 38	x 0.38	S D	20 9	D R
Sandoval W; Clinton; 2N; 1W														
Cypress, Mis Benoist	1,420	10 10	Abd 1960; rev 1961	26 26	1 1	0 0	0 0	0 0	0 0	x x	x x	S S	4 x	A A
Cypress, Mis	955	10	Abd 1947	2	1	0	0	0	0	x	x	S	10	A Dev 2,512
McClosky, Mis	3,000	80	4	261	4	0	0	0	0	37	0.19	OL	5	AC Mis 3,130
Schnell E; Richland; 2N; 9E	3,115	20	Abd 1954	0.5	1	0	0	0	0	x	x	L	4	AC Mis 3,150
Sciota; McDonough; 7N; 3W	519	20	Abd 1960	0	1	0	0	0	0	28	x	L	16	X Sil 760
Seminary; Richland; 2N; 10E	3,195	160	1	225	8	0	0	0	0	x	x	L	8	MC Mis 3,330
Sesser C; Franklin; 5-6S; 1-2E														
Cypress, Mis	2,455	20	139	2,106	80	4	0	0	0	64	x	S	5	A Dev 4,688
Renault, Mis	2,690	150	x	x	2	0	0	0	0	x	0.17	S	10	AC
Aux Vases, Mis	2,700	710	x	x	55	2	0	0	0	39	0.17	S	10	AL
Chara, Mis	2,675	20	0	0	1	0	0	0	0	x	x	L	8	A
Spar Mtn, Mis	2,810	80	x	x	4	0	0	0	0	x	x	L	10	AC
McClosky, Mis	2,840	100	x	x	5	0	0	0	0	x	x	L	5	AC
St. Louis, Mis*	3,002	20	x	x	1	0	0	0	0	x	x	L	20	AC
Clear Creek, Dev 2 or more pays	4,360	160	x	x	7	0	0	0	0	x	x	L	x	AC
Shattuc; Clinton; 2N; 1W														
Cypress, Mis	1,280	340	16	586	28	0	0	0	0	14	x	S	7	Ord 4,078
Benoist, Mis	1,420	10	x	x	12	0	0	0	0	x	x	S	13	AL
Trenton, Ord	4,020	240	x	x	15	0	0	0	0	40	x	L	13	A
Benoist, Mis	1,445	10	2	2	1	1	0	0	0	1	x	S	7	X Mis 1,457
Shawneetown; Gallatin; 9S; 9E														
Cypress, Mis	1,720	60	Abd 1950; rev 1955; abd 1960	16	5	0	0	0	0	0	0	L	M	Mis 2,837
Waltersburg, Mis*	1,900	20	x	x	2	0	0	0	0	x	x	S	28	M
Tar Springs, Mis	1,960	10	x	x	1	0	0	0	0	x	x	S	12	M
Cypress, Mis*	2,375	30	x	x	3	0	0	0	0	x	x	S	x	M
Aux Vases, Mis 2 or more pays	2,650	10	0	0.5	1	0	0	0	0	x	x	S	14	M
Shawneetown E; Gallatin; 9S; 10E														
Waltersburg, Mis	1,855	40	1	17	4	0	0	0	0	1	x	S	10	X
Bethel, Mis	2,480	20	0	x	2	0	0	0	0	x	x	S	x	X
Aux Vases, Mis	2,660	10	0.5	3	1	0	0	0	0	x	x	S	9	X
Shawneetown N; Gallatin; 9S; 10E														
Aux Vases, Mis	2,750	30	Abd 1953; rev 1955	13	70	3	0	0	0	x	x	S	20	MF
McClosky, Mis	3,045	20	0	6	1	0	0	0	0	x	x	L	6	MF
Shelbyville C; Shelby; 11N; 4E	1,860	90	0	30	8	1	0	0	0	2	x	S	15	A Mis 3,301
Sicily; Christian; 13N; 4W	1,860	100	1	63	5	0	0	0	0	2	x	L	16	X Sil 1,884

* Multiple pay or workover wells only.
† Pool listed in table 19 (gas production).

TABLE 18 — ILLINOIS OIL POOL STATISTICS, 1961 — Continued

Pool, county, location by township and range (*Secondary recovery—see Part II)	Pay zone Name, age, and depth in feet	Year of discovery	Area proved in acres	Oil production M bbls			Number of wells			Character of oil		Pay zone Kind of rock, av. thickness in feet, Structure	Deepest test Zone and depth (ft)	
				During 1961	To end of 1961	Abandoned in 1961	Completed to end of 1961	Producing end of year	Gr. API (%)	Sulfur (%)				
											1961			1961
• Siggins; Cumberland, Clark; 10-11N; 10-11E, 14W		1906	4,020	x	x	1,110	0	0	513			D	Dev 2,069	
	1st (upper) Siggins, Pen			x	x	890	0	0		34	x	S 25	D	
	2nd (lower) Siggins, Pen		3,210	x	x	93	0	0		34	x	S x	D	
	3rd & 4th Siggins, Pen		500	x	x	203	0	0		26	x	S 40	D	
	Silurian	1959	260	34	130	13	2	0	13	35	x	D 4	AC Ord 942	
• Sorento C; Bond; 6N; 4W		1938	690	70	1,652	55	1	3	27		x	S 20	A Ord 2,680	
	Lingle, Dev	1956	40	x	x	4	0	0		35	x	S 8	A	
	Devonian	1956	650	x	x	51	1	3			x	L x	Ord 2,706	
	Cypress, Mis	1888	20	Abd 1956	0	1	0	0			x	S 7	D Trn 3,130	
	Cypress, Mis	1949	880	10	Abd 1950	0	1	0			x	S 8	A Mis 909	
	Hibbard, Dev	1960	260	66	187	14	6	1	12		x	S 4	D R Sil 1,685	
	Silurian	1960	20	x	x	1	0	0		39	x	D 12	R	
	Pennsylvanian	1952	10	0.1	2	1	0	0			x	S 11	A Ord 2,371	
• Staunton W; Macoupin; 7N; 7W		1954	200	10	48	21	1	2	16	35	x	S 10	X Dev 1,487	
• Stewardson; Shelby; 10N; 5E		1939	240	53	394	20	2	0	19		37	0.18	S 9	A Mis 2,138
	Aux Vases, Mis	1939	190	x	x	19	2	0			x	S 4	A	
	Spar Mtn, Mis	1958	70	x	x	5	1	0			x	S 4	A	
	2 or more pays	1958				4	1	0						
• Storms C; White; 5-6S; 9-10E		1939	4,740	756	12,140	358	16	7	206		x	S 10	AM Mis 3,550	
	Pennsylvanian		80	x	x	7	1	0			x	S 4	Af	
	Biehl, Pen		70	x	x	7	1	0			x	S 7	AL	
	Degonia, Mis		140	x	x	13	2	0		38	x	S 10	AL	
	Clore, Mis		290	x	x	28	4	4			x	S 12	AL	
	Palestine, Mis		70	x	x	6	2	0			x	S 15	AL	
	Waltersburg, Mis		2,230	x	x	211	1	3		32	0.28	S 10	Mf	
	Tar Springs, Mis		180	x	x	15	2	0		36	x	S 9	Mf	
	Hardinsburg, Mis		2,476	x	x	2	0	0		35	x	S 10	Mf	
	Cypress, Mis	1959	210	x	x	15	2	0			x	S 10	Mf	
	Bethel, Mis		40	x	x	4	0	0			x	S 5	A	
	Renault, Mis		2,990	x	x	1	0	0		38	x	S 13	Af	
	Aux Vases, Mis		620	x	x	59	3	0			x	L 10	AC	
	Ohara, Mis*		100	x	x	6	2	0			x	L 2	AC	
	Spar Mtn, Mis		160	x	x	8	0	0			x	L 5	MC	
	McClosky, Mis		150	x	x	7	0	0			x	L 4	X Mis 3,144	
	2 or more pays					29	3	0						
• Stringtown; Richland; 4-5N; 11E, 14W Ste. Gen, Mis		1941	880	14	1,505	35	1	0	17	40	0.24	OL 8	AC Mis 3,401	
	Stringtown E; Richland; 4N; 14W	1948	30	Abd 1950	2	1	0	0			x	L 4	X Mis 3,144	

TABLE 18 — ILLINOIS OIL POOL STATISTICS, 1961 — Continued

Pool, county; location by township and range (*Secondary recovery—see Part II)	Pay zone Name, age, and depth in feet	Year of dis- covery	Area proved in acres	Oil production M bbls		Number of wells			Character of oil		Pay zone Kind of rock, av. thickness in feet, Structure	Deepest test Zone and depth (ft)
				During 1961	To end of 1961	Completed to end of 1961	Com- pleted in 1961	Aban- doned 1961	Pro- duc- ing end of year	Gr. API		
Tolliver E (cont.)	McClosky, Mis 2,840		60	2	212	3	0	0	x	x	OL 8 MC	
Tolliver S; Clay; 4N; 6E	Aux Vases, Mis 2,765 McClosky, Mis 2,875	1953 1956	70 10 60	1 0 1	58 21 37	4 1 3	0 0 0	1 1 0	x x 34	x x x	S S L 5 MC	Mis 2,915 MC MC
• Tonti; Marion; 2-3N; 2E	Benoist, Mis 1,930 Aux Vases, Mis 2,005 Spar Mtn, Mis 2,125 McClosky, Mis 2,130 Devonian 3,500 2 or more pays	1938	790	233	11,893	101	3	1	39	x	S 20 D	Ord 4,900
Tovey; Christian; 13N; 3W	Silurian 1,850	1955	20	1	14	1	0	0	38	x	L 10 X	Sil 1,881
• Trumbull C; White; 5S; 8-9E	Cypress, Mis 2,845 Bethel, Mis* 2,955 Aux Vases, Mis 3,170 Ohara, Mis 3,230 Spar Mtn, Mis 3,270 McClosky, Mis 3,290 2 or more pays	1944	1,310	192	1,962	99	10	4	36	x	S 10 A	A Mis 4,125
Trumbull N; White; 4S; 8E	Aux Vases, Mis 3,325 McClosky, Mis 3,466	1961 1961	50 10 40	3 x 3	3 x 3	3 1 2	0 1 2	0 0 0	x x x	x x x	S 6 X OL 16 X	Mis 3,537
Turkey Bend; Perry; 4S; 2W	Trenton, Ord 3,940	1957	20	3	21	1	0	0	1	x	L x X	Ord 4,044
Valier; Franklin; 6S; 2E	McClosky, Mis 2,715	1942	20	0	2	1	0	0	x	x	L 12 ML	Mis 2,725
Waggoner; Montgomery; 11N; 5W	Pottsville, Pen 610	1940	60	x	11	6	0	0	28	0.21	S 10 X	Dev 1,893
Wakefield; Jasper; 5N; 9E	Spar Mtn, Mis 3,100	1946	40	0	2	2	0	0	x	x	L 5 X	Mis 3,207
Wakefield N; Jasper; 5N; 9E	McClosky, Mis 3,000	1953	20	Abd 1947; rev 1953; abd 1954	20	1	0	0	x	x	L 6 X	Mis 3,204
Wakefield S; Richland; 5N; 9E	McClosky, Mis 3,040	1955	20	Abd 1955	0	1	0	0	x	x	L 4 X	Mis 3,095
• Walpole; Hamilton; 6-7S; 6E	Tar Springs, Mis 2,465 Aux Vases, Mis 3,070 Spar Mtn, Mis 3,195 McClosky, Mis 3,162 St. Louis, Mis 3,544	1941	1,870	270	6,580	108	7	7	36	x	S 15 AL	Dev 5,325
Walpole S; Hamilton; 7S; 6E	Aux Vases, Mis 3,120	1951	20	2	119	2	0	0	x	x	S 6 AL	Mis 3,362
Watonsville; Jefferson; 3S; 2E	Benoist, Mis 2,460	1943	40	2	114	4	0	0	38	0.14	S 9 A	Mis 2,909
• Wamac; Marion, Clinton, Washington; 1N; 1E, 1W		1921	320	9	657	117	0	0	10		DF	Ord 4,160

Zenith; Wayne; 2N; 5E	McClosky, Mis	2,970	1948	40	Abd 1956	24	2	0	0	0	0	0	x	L	7	AC	Mis	3,059
• Zenith N; Wayne; 2N; 6E	Spar Mtn, Mis	3,080	1951	280	22	896	14	0	1	12			x	L	6	N	Mis	3,254
	McClosky, Mis	3,140		240	x	x	12	0	0				x	L	6	NC		
	2 or more pays			180	x	x	6	0	1				x	L	4	NC		
							4	0	0									
Zenith S; Wayne; 1N; 5E	Ohara, Mis*	2,920	1949	280	3	761	14	0	1	2			x	L	6	M	Mis	3,116
	McClosky, Mis	2,985		40	x	x	2	0	0				x	L	6	MC		
	2 or more pays			280	x	x	12	0	1				x	L	7	MC		
							2	0	0									
Totals for 1961**				602,655	77,478	2,307,864	58,073	1,069	1,187	30,398								

* Multiple pay or workover wells only.
 ** Figures are subject to change.

TABLE 19 — ILLINOIS GAS POOL STATISTICS, 1961

Pools located in two or more counties have county names listed in order of discovery.

EXPLANATION OF ABBREVIATIONS

Pool: N, North; S, South; E, East; W, West; C, Consolidated.

Age: Pc, Precambrian; Cam, Cambrian; Ord, Ordovician; St. P, St. Peter; Trn, Trenton; Sil, Silurian; Dev, Devonian; Mis, Mississippian; Pen, Pennsylvanian.

Kind of rock in pay zone: D, dolomite; L, limestone; LS, sandy limestone; S, sandstone.

Structure: A, anticline; D, dome; F, faulting an important factor in gas accumulation; f, faulting a minor factor in gas accumulation; L, lens; M, monocline; R, reef; X, structure not determined.
Combinations of the above letters are used where more than one factor applies.
Abd: Pool abandoned.

Rev: Pool revised.

x - Correct figure not determinable.

Pool; county; location by township and range	Pay zone Name, age, and depth in feet	Year of discovery	Area proved in acres	Gas production million cu ft		Number of wells			Pay zone		Deepest test Zone and depth (ft)		
				During 1961	To end of 1961	Completed to end of 1961	Com- pleted in 1961	Aban- doned in 1961	Pro- ducing end of year	Av. thick- ness in feet		Struc- ture	
Albion C; * Edwards, White; 3S; 10E	Pennsylvanian	1,490	40	0	0	1	0	0	0	0	6	MF	Dev 5,185
Ashmore S; * Coles, Clark; 12N; 10-11E, Unnamed, Pen 14W		430	80	0	0	8	0	0	0	8	x	A	Mis 555
Ava-Campbell Hill; * Jackson; 7S; 3-4W Cypress, Mis		780	370	abd 1943; x rev (oil) 1956; abd 1957	20	0	0	0	0	0	18	A	Trn 3,582
Ayers Gas; Bond; 6N; 3W	Bethel, Mis	940	325	abd 1950	298.7	21	0	0	0	0	5	A	Ord 3,044
Beaver Creek NE Gas; Bond; 4N; 2W	Benoist, Mis	1,126	10	0	0	1	1	0	0	0	5	X	Sil 2,487
Beaver Creek S; * Bond, Clinton; 3-4N; Cypress, Mis 2W		1,015	240	0	0	6	0	0	0	0	20	A	Dev 2,539
Beckemeyer Gas; * Clinton; 2N; 3W	Cypress, Mis	1,070	80	abd 1958	0	2	0	0	0	0	23	X	Sil 2,730
Beverly Gas; Adams; 3S; 5W	Silurian	450	80	0	0	2	0	0	0	0	6	X	Sil 498
Boulder; * Clinton; 2-3N; 2W	Geneva, Dev	2,630	320	0	0	4	0	0	0	0	7	R	Trn 3,813
Boulder E; * Clinton; 3N; 1W	Devonian	2,840	40	abd 1957	0	1	0	0	0	0	12	X	Sil 2,895
Carlinville; * Macoupin; 9N; 7W	Unnamed, Pen	365	60	abd 1925; rev 1942	0	6	0	0	0	2	x	A	Mis 1,380
Carlinville N; * Macoupin; 10N; 7W	Pottsville, Pen	440	40	abd 1954	0	1	0	0	0	0	10	X	Trn 1,970
Carlyle; * Clinton; 2N; 3W	Cypress, Mis	1,015	10	x	x	1	0	0	0	1	x	AL	St. P 4,120
Casey; * Clark; 10-11N; 14W	Casey, Pen	440	x	x	x	x	1	0	0	x	x	AM	Dev 1,717
Claremont; Richland; 3N; 14W	Spar Mtn, Mis	3,200	160	abd 1952	0	1	0	0	0	0	5	MC	Mis 3,340
Cooks Mills C; * ++ Coles, Douglas; 13-14N; 7-8E	Cypress, Mis	1,600	830	x	x	20	0	0	0	19	0	A	Dev 2,888
	Aux Vases, Mis	1,800	600	x	x	11	0	0	0	0	10	A	A
	Spar Mtn, Mis	1,765	40	0	0	1	0	0	0	0	8	A	S
	2 or more pays		410	0	0	5	0	0	0	0	15	A	S
						3	0	0	0	0			
Dubois C; * Washington; 3S; 1-2W	Cypress, Mis	1,220	400	0	0	10	0	0	0	0	10	A1	Ord 4,217
Dudley; * Edgar; 14N; 13W	Pennsylvanian	300	80	0	0	2	0	0	0	0	20	M	St. P 2,997

TABLE 19 — ILLINOIS GAS POOL STATISTICS, 1961 — Concluded

Pool, county; location by township and range	Pay zone Name, age, and depth in feet	Year of discovery	Area proved in acres	Gas production Million cu. ft.		Number of wells			Kind of rock	Pay zone Av. thickness in feet	Deepest test Zone and depth (ft)
				During 1961	To end of 1961	Completed to end of 1961	Number of wells				
							Completed in 1961	Abandoned in 1961			
New Athens Gas; St. Clair; 2S; 7W	Cypress, Mis	250 1961	30	0	0	3	0	0	S	13	X Mis 311
Omaha; * Gallatin; 7-S; 8E	Tar Springs, Mis	1,900 1940	120	0	0	3	0	1	S	15	D Mis 2,941
Panama; * Bond, Montgomery; 7N; 3-4W	Pennsylvanian	575 1940	280	0	x	7	0	0	S	30	A Dev 2,016
	Bethel, Mis	865	160	0	x	4	0	0	S	12	A
			120	0	x	3	0	0	S	10	A
Pittsfield (Gas); Pike; 5S; 4-5W	Niagaran, Sil	265 1936	8,960	0	x	68	0	0	L	10	A Pc 2,226
Plainview; * Macoupin; 8N; 8W	Pennsylvanian	441 1961	10	0	0	1	0	0	S	20	X Pen 462
Prentice; * Morgan; 16N; 8W	Pennsylvanian	260 1953	290	0	0	7	0	0	S	15	X Ord 1,513
Redmon N Gas; Edgar; 14N; 13W	Pennsylvanian	365 1955	40	0	0	1	0	0	S	3	X Mis 450
Richwood (Gas); Crawford; 6N; 11W	Pennsylvanian	612 1959	20	8.6	x	3	1	0	S	9	X Pen 621
Roland C; * Gallatin; 7S; 8E	Waltersburg, Mis	2,150 1940	160	0	0	1	0	0	S	19	AL Dev 5,225
Russellville Gas; * Lawrence; 4-5N; 10-11W	Bridgeport, Pen	760 1937	1,800	0	7,081.6	60	0	0	S	15	A Dev 3,133
	Buchanan, Pen	1,100	x	0	x	18	0	0	S	12	AL
			x	0	x	42	0	0	S	x	D Trn 2,070
Spanish Needle Creek (Gas); Macoupin; 9N; 7W	Unnamed, Pen	305 1915	80	abd 1934	14.4	7	0	0	S	7	D
Sparta; * Randolph; 4-5S; 5-6W	Cypress, Mis	850 1888	160	abd 1900	x	18	0	0	S	7	D Trn 3,130
Stamton; * Macoupin; 7N; 7W	Unnamed, Pen	460 1916	400	abd 1919	1,050.0	18	0	0	S	x	A Ord 2,371
Storms C; * White; 5-6S; 9-10E	Gas, Pen	1,090 1939	440	0	x	9	0	2	S	40	Af Mis 3,267
	Waltersburg, Mis	2,230	280	0	0	7	0	0	S	15	AL
Summer S (Gas); Lawrence; 3N; 13W	Aux Vases, Mis	2,566 1959	10	abd 1960	0	1	0	0	S	10	Mis 2,791
Tamaroa; * Perry; 4S; 1W	Cypress, Mis	1,120 1942	20	0	0	2	0	0	S	13	Mis 1,630
Tilden N Gas; ††; Washington, St. Clair; 3S; 5-6W	Cypress, Mis	780 1961	x	x	x	x	x	x	S	25	ML Ord 2,810
				Converting to gas storage, 1961							
Wagoner; * Montgomery; 11N; 5W	Pottsville, Pen	523 1959	10	0	0	1	0	1	S	2	X Dev 1,893
Wamac E; * Marion; 1N; 1E	Petro, Pen	856 1958	80	36.5	292.6	8	0	8	S	x	M Dev 3,405
Waverly; †† * Morgan; 13N; 8W	Pennsylvanian	250 1946	860	0	0	7	0	0	S	13	A Ord 2,070
	Devonian	1,000	700	0	0	6	0	0	L	10	A
Westfield E; * Clark; 12N; 14W	Pennsylvanian	400	50	0	0	2	1	0	S	11	ML Pen 678
Total for Illinois (estimated)			31,635	834.4	14,778.5	577	18	0	99		

* Pool also produces oil.

† Multiple pay or workover wells only.

†† Gas storage project. Amount of native gas produced not determinable.

** Pilot storage in St. Peter.

PART II. WATERFLOOD OPERATIONS

Carl W. Sherman and Richard F. Mast

INTRODUCTION

The following review of Illinois waterflood operations is the thirteenth in the series that was initiated in 1949 for the purpose of providing basic information for accurate prediction of recoverable reserves and the performance of future projects.

The cooperation of both large and small oil operators in Illinois in providing the data requested by the Illinois Geological Survey made this report possible, and the time and effort that they have given is sincerely appreciated. Alan A. Coburn, Robert R. Werhle, and Judy Ablinger, all members of the Illinois Geological Survey staff, assisted in compiling the data.

A generalized stratigraphic sequence of "formations" in the Illinois Basin is presented below (table 20). Asterisks indicate those that produce oil, and the figures give the reported waterflood projects in each zone. This number does not necessarily reflect the amount of acreage involved or the floodability of the particular zone (see also fig. 3).

TABLE 20—"FORMATIONS" UNDER
FLOOD IN 1961

"Formations"	Number of waterfloods reported in 1961
*(Westfield "Gas" Sand)	0
*(Casey "Gas" Sand)	0
*(Siggins)	4
*(Bellair "500")	2
*Bridgeport	15
*Claypool	2
*Robinson	73
*Petro	2
*Casey	10
*Partlow	7
*Biehl	32
*Buchanan	1
*Jordan	8

"Formations"	Number of waterfloods reported in 1961
*(Pennsylvanian unclassified)	13
Kinkaid	0
*Degonia	2
*Clore	4
*Palestine	3
Menard	0
*Waltersburg	23
Vienna	0
*Tar Springs	31
*Glen Dean	0
*Hardinsburg	8
*Golconda (Jackson)	4
*Cypress (Kirkwood, Weiler)	165
*Paint Creek (Bethel)	41
*Yankeetown (Benoist)	72
*Renault	4
*(Chester unclassified)	0
*Aux Vases	131
*Ste. Genevieve	1
*(Ohara)	11
*(Rosiclare)	31
*(McClosky)	50
*St. Louis	0
*Salem	0
Osage	
*(Carper)	1
Chouteau	0
New Albany	0
*Devonian	4
*Silurian	1
Maquoketa	0
*Trenton	1

SUMMARY OF WATERFLOOD OPERATIONS

As in the past 19 years, waterflood oil production continued its upward trend and reached a high of 51,682,000 barrels in 1961. This represents 66.7 percent of the total Illinois production of 77,478,000 barrels for the year. Of the total waterflood oil produced in 1961, 50,412,000 barrels was from reported floods, and the remaining 1,270,000 barrels was estimated as the amount produced from unreported dump floods. The 1961 total waterflood production represents an increase of 11 percent, or 5,143,000 barrels over 1960's waterflood production of 46,548,000 barrels (corrected value). It is es-

timated that more than 70 percent of Illinois total production in 1962 will be from waterflood operations.

As the gain in waterflood oil was slightly greater than the decline in primary production, the state's total oil production of 77,478,000 barrels was 137,000 barrels more than in 1960 (fig. 4). The gain represents only half of one day's production.

At the end of 1961 the cumulative waterflood production from reported projects was 334,716,000 barrels, with an estimated cumulative production of 30,740,000 barrels attributed to unreported dump floods. Cumulative production figures in table 21 differ considerably

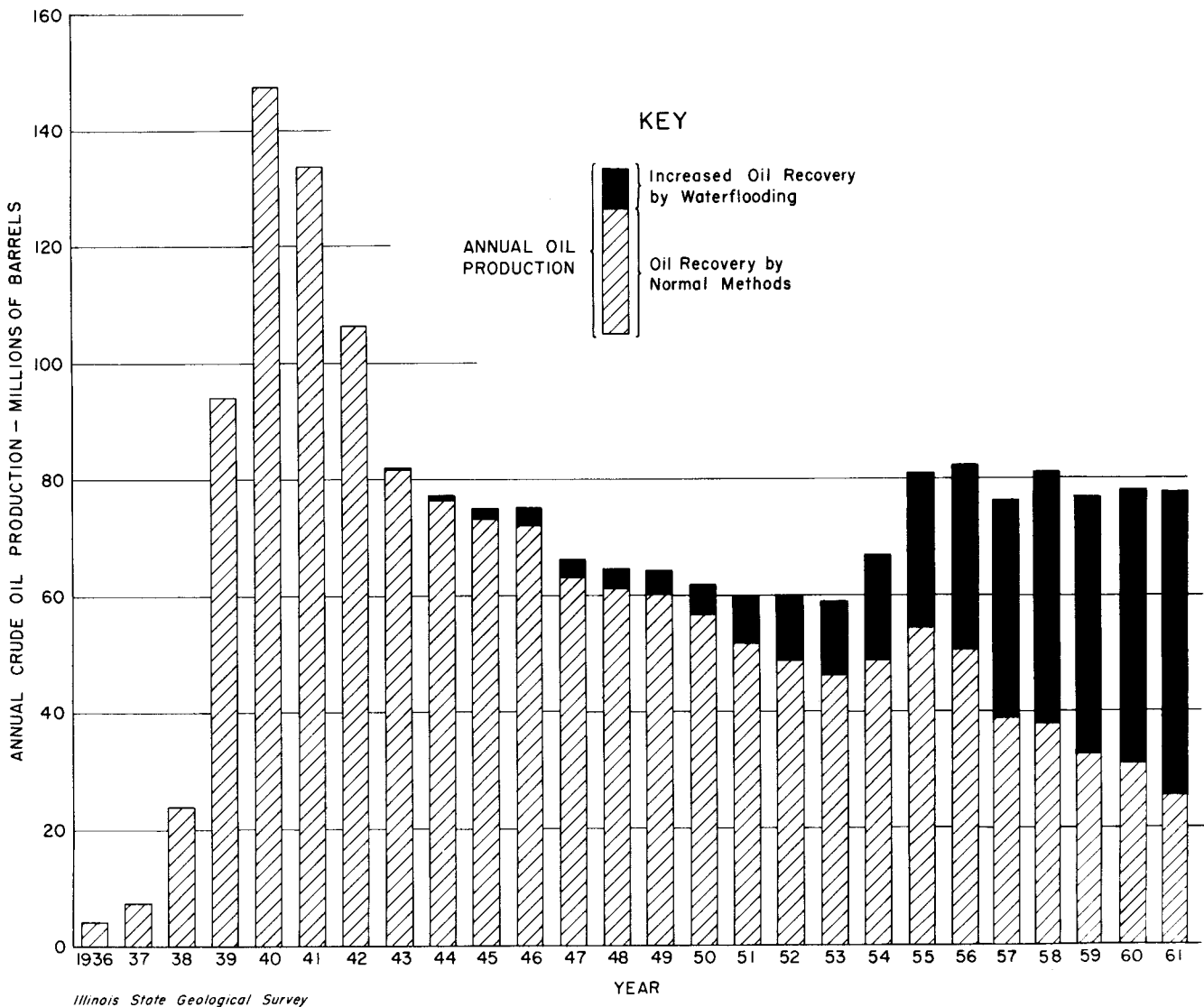
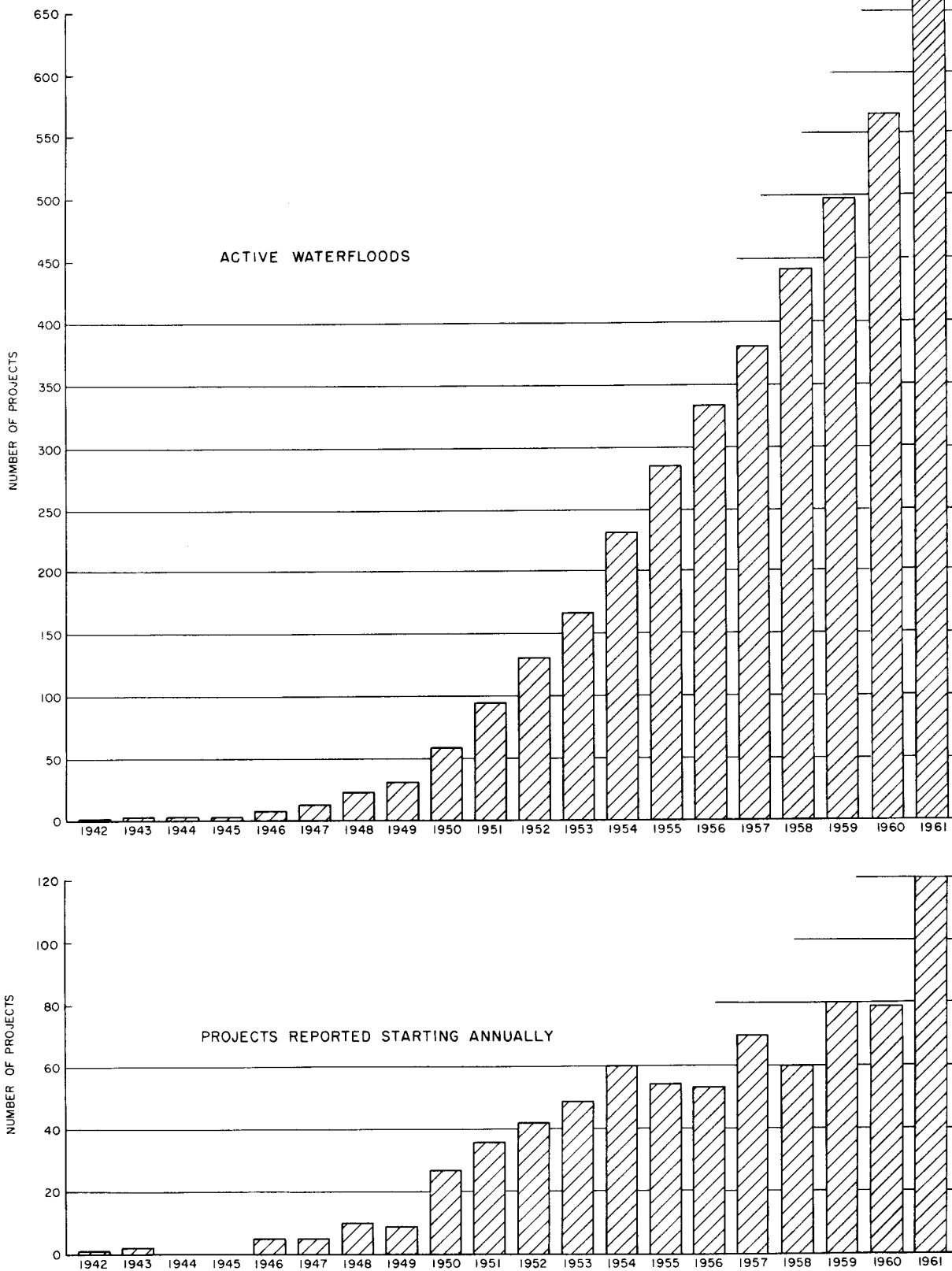


Fig. 4 -- Annual crude oil production in Illinois.



ILLINOIS STATE GEOLOGICAL SURVEY

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

TABLE 21 - SUMMARY OF WATER-

Year	No. of active projects	Water injection (M bbls)		Reported waterflood oil production (M bbls)		Estimated dump flood production (M bbls)	
		Annual	Cumulative+	Annual	Cumulative+	Annual	Cumulative+
1949	33	20,612	50,983	2,511	10,393	1,500	5,000
1950	63	44,053	99,040	3,107	13,826	1,500	6,500
1951	84	57,147	148,279	6,672	21,890	1,500	8,000
1952	131	72,951	221,078	8,752	29,000	2,000	12,000
1953	167	118,409	335,727	10,086	39,800	2,250	14,600
1954	232	176,012	512,202	15,985	55,687	2,129	17,900
1955	284	224,579	745,573	24,585	81,131	1,978	19,800
1956	333	271,270	1,014,900	29,600	111,700	1,700	21,500
1957	382	295,750	1,310,000	35,442	147,142	1,750	23,250
1958	443	317,153	1,606,500	40,883	187,338	2,040	25,290
1959	499	345,098	1,954,200	41,360	238,512	2,430	27,720
1960	559	376,563	2,324,200	44,789	283,862	1,750	29,470
1961	658	390,093	2,753,361	50,412	334,716	1,270	30,740

* Waterflood oil includes estimated dump flood production. All other figures exclude dump flood data.

from those published in table 19 of Illinois Petroleum 75, the Survey's report covering 1960. The changes were the result of corrections by operators of previously reported production figures for a few of Illinois' major floods. These adjustments carried back as far as 1957 and required that other columns of the statistics table also be recalculated.

The dependence of the Illinois oil industry on secondary production has been emphasized in previous reports. With two-thirds of the total production already resulting from water injection, it is evident that improved recovery techniques must be initiated and more exploratory holes must be drilled if the state is to maintain its present level of oil production.

Experimental field projects involving hot water, steam, in situ combustion, carbon dioxide, and miscible fluids are now underway or are being planned. The importance of these pilot projects to the future of the Illinois oil industry hardly can be overestimated.

During 1961 the reported oil production from projects classified by the operators as pressure maintenance was 1,057,000 barrels. This

oil is not included in the total waterflood production because of its classification.

A compilation of waterflood statistics from 1949 through 1961 is presented in table 21. In the following brief discussion of table 21, all comparisons are made from the values in this table, which include the aforementioned adjustments by operators. The figures from 1957 to 1960 therefore differ from those published in previous reports.

Some 390,000,000 barrels of water were injected into reported projects during 1961. This is a gain of approximately 3.5 percent and is the lowest percentage increase since 1949. The cumulative water injection total reached 2,753,000,000 barrels.

The 1,270,000 barrels of oil estimated to have been produced from unreported dump floods reflects a 27 percent decrease from the previous year's total. This downward trend began in 1960 and is expected to continue.

Total acreage subjected to injection rose to 171,825 acres in 658 reported projects during 1961. This is a 12.5 percent increase but is less than the 1960 rate of growth. The average acre-

FLOOD STATISTICS, 1949-1961

Total oil prod. (M bbls)	Waterflood prod. % of total prod.*	No. of wells in flood projects		Productive acreage Subjected to inj.		% of total acreage under flood	Cumulative waterflood oil recovery/ acre sub- jected to injection	Cumulative injected water/ cumulative produced oil
		Inj.	Prod.	to inj.	Total			
64,501	6.2	946	1,055	8,450	375,985	2.2	1,230	4.9
62,028	7.4	1,097	1,197	14,123	397,685	3.6	979	7.2
60,244	13.4	1,620	5,230	17,646	412,050	4.3	1,241	6.8
60,071	17.9	2,160	5,114	31,330	425,025	7.4	926	7.6
59,025	20.9	2,849	5,298	37,854	434,100	8.7	1,051	8.4
67,000	27.0	3,597	6,686	59,027	500,130	11.8	943	9.2
81,131	32.7	4,407	7,163	72,832	521,200	14.0	1,114	9.2
82,314	38.0	5,307	7,687	92,350	539,315	17.1	1,210	9.1
76,649	48.5	5,734	7,814	112,000	550,305	20.4	1,316	8.9
80,779	53.1	6,647	8,567	122,500	562,535	21.8	1,529	8.6
76,727	57.1	7,327	9,306	136,976	574,625	23.8	1,741	8.1
77,341	60.2	8,062	9,855	152,823	585,045	26.1	1,857	8.2
77,478	66.7	8,560	10,521	171,825	602,665	28.5	1,948	8.2

+ Current annual plus previous cumulative does not equal current cumulative due to yearly revisions.

age per new reported project also decreased from about 190 in 1960 to 155 in 1961.

The average recovery per acre rose to 1,948 barrels while the ratio of barrels of water injected per barrel of oil produced remained constant at 8.2.

Table 24 contains the data submitted by the operators on 658 projects in operation during 1961. The actual number of new reported projects was 120 during the year and indicates that a large number of small tracts are being developed (fig. 5).

Table 22 is a key to the numbering system used on plate 1 and in table 23 and includes a summary of the projects by counties.

Table 23 is a numerical listing of the projects in tables 24, 25, and 26 in which the projects are first arranged alphabetically by pool and then alphabetically by operator. Used as a cross index, table 23 will allow the reader to locate in tables 24, 25, and 26 any flood on plate 1 that is of particular interest because of geographic location.

Table 25 presents the data received on 13 projects considered by the operators to be

pressure maintenance. Although the total number is the same as in 1960, one such project was abandoned and one new one was reported. As has been discussed in previous reports, there is considerable question as to whether or not these projects and their production should be considered as waterflood. However, the omission of this production from the waterflood total does compensate for primary production that may be included as secondary oil.

Table 26 is the information available on the 104 waterfloods that have been reported as abandoned since 1949. The yearly abandonments are shown in figure 6, and a considerable difference can be seen between this graph and the corresponding one in the 1960 report. Although the actual number of abandonments reported in table 26 increased by 19, several of these were delayed reports from previous years. Figure 6 appears on page 99.

TABLE 22 - PROJECT NUMBERS BY COUNTY AND SUMMARY OF WATERFLOOD PROJECTS IN 1961

No.	County	Active water floods	Active pressure maintenance	Abandoned	Total	No.	County	Active water floods	Active pressure maintenance	Abandoned	Total
000	Bond	1	1	3	5	2300	Macon	0	0	0	0
100	Christian	4	0	0	4	2400	Macoupin	1	0	0	1
200	Clark	19	0	8	27	2500	Madison	2	0	1	3
300	Clay	30	0	6	36	2600	Marion	18	0	0	18
400	Clinton	10	3	1	14	2700	McDonough	0	0	0	0
500	Coles	9	0	1	10	2800	Monroe	0	0	0	0
600	Crawford	76	0	12	88	2900	Montgomery	1	0	0	1
700	Cumberland	5	0	2	7	3000	Moultrie	0	0	0	0
800	Douglas	2	0	0	2	3100	Perry	1	0	0	1
900	Edgar	0	0	0	0	3200	Pope	0	0	0	0
1000	Edwards	21	1	3	25	3300	Randolph	0	0	0	0
1100	Effingham	6	0	0	6	3400	Richland	16	0	7	23
1200	Fayette	31	1	1	33	3500	St. Clair	0	0	0	0
1300	Franklin	12	1	0	13	3600	Saline	7	0	1	8
1400	Gallatin	26	1	1	28	3700	Sangamon	0	0	0	0
1500	Hamilton	30	0	1	31	3800	Shelby	1	0	0	1
1600	Hancock	0	0	0	0	3900	Wabash	72	2	14	88
1700	Hardin	0	0	0	0	4000	Washington	6	0	0	6
1800	Jackson	0	0	0	0	4100	Wayne	44	0	9	53
1900	Jasper	11	0	3	14	4200	White	115	2	24	141
2000	Jefferson	12	1	1	14	4400	Williamson	0	0	0	0
2100	Johnson	0	0	0	0						
2200	Lawrence	69	0	4	73						
							Totals	658	13	104	775

WATERFLOOD OPERATIONS

TABLE 23 - WATERFLOOD PROJECTS IN NUMERICAL ORDER AS SHOWN ON PLATE 1

No.	Oil Pool C=Consolidated	Operator	Project U=Unit	No.	Oil Pool C=Consolidated	Operator	Project U=Unit
Bond County				Clark County (Continued)			
000	Old Ripley	Cahill & Smith	Ripley U	217*	Casey	Calvan American	Shawver
001+	Beaver Creek	Conrey & Conrey	Wrone	218*	Martinsville	J. B. Buchman	
002*	Woburn C	Arrow		219*	Martinsville	Mobil	Carper
003*	Sorento C	J. Simpkins		220*	Martinsville	Mobil	Casey
004*	Woburn C	E. E. Jenne- man	Spindler	221*	Westfield	Ree	Hawkins
Christian County				222*	Westfield	Forest	Parker
100	Assumption C	Continental	Benoist	223	Oak Point	D. B. Lesh	B. Finney
101	Assumption C	Continental	Devonian	226	Johnson N	K. E. Bush	E. A. Shawver
102	Assumption C	Continental	Rosiclare	227	Melrose	Shakespeare	Melrose U
103	Edinburg W	Skiles	Edinburg W U	228	Johnson S	Dillman & Tyhurst	
Clark County				Clay County			
200	Casey	F. A. Bridge	States Oil	300	Clay City C	Continental	N. Clay City U
201*	Casey	Forest	Casey	301*	Clay City C	Phillips	Minnie
202	Casey	D. W. Franchot	N. Casey	302	Clay City C	Pure	Banker School C
203	Johnson N	W. H. Bass	N. Johnson	303	Iola C	Tidewater	Iola Coop
204	Johnson N	F. A. Bridge	Block "A"	304	Iola C	Tidewater	Reed & Heirs
205	Johnson N	F. A. Bridge	Block "B"	305	Kenner	Texaco	Kenner U
206	Johnson N	O. A. Old-field	V. Jones	306	Kenner W	Phillips	W. Kenner U
207	Johnson N	Pure	N. Johnson	307	Oskaloosa	Texaco	Oskaloosa U
208*	Johnson N	Tidewater	Clark Co. 1	308	Passport	Shakespeare	Stanley-Hinterscher-Malin U
209	Johnson S	Forest	S. Johnson (12)	309	Sailor Springs C	Cities Service	Wyatt
210	Johnson S	Pure	Johnson Ext.1	310*	Sailor Springs C	Gulf	R. Keck
211	Johnson S	Pure	Johnson Ext.2	311	Sailor Springs C	Mobil	Sailor Springs U
212	Johnson S	Pure	Pure-Kewanee	312	Sailor Springs C	W. C. McBride	Goldsby-Dickey
213	Johnson S	Pure	Weaver-Bennett	313	Sailor Springs C	W. C. McBride	Duff-Keck
214	Martinsville	Froderman & Connelly	Froderman & Connelly U	314*	Sailor Springs C	W. C. McBride	Bothwell
215	Siggins	General Operations	Siggins				
216	Siggins	Pure	Union Group				

* Abandoned. + Pressure maintenance.

Table 23 - Continued

No.	Oil Pool C=Consolidated	Operator	Project U=Unit	No.	Oil Pool C=Consolidated	Operator	Project U=Unit
Clay County (Continued)				Clinton County (Continued)			
315	Sailor Springs C	Shulman Bros	Colclasure & Hardy	404	Centralia	Shell	Centralia U
316*	Sailor Springs C	Shulman Bros	Neff	405+	Beaver Creek S	Conrey & Conrey	Kneier & Ragland
317*	Stanford	Gulf	S. Stanford U	406+	Germantown E	NAP Co.	Germantown
318	Sailor Springs C	Ashland	E. Flora	407+	Carlyle N	Conrey & Conrey	Kreitemeyer
319	Sailor Springs C	Alco	Clay City NE	408*	Centralia	Sohio	Clinton
320*	Ingraham	Humble	Ingraham	409	Beaver Creek S	Conrey & Conrey	Reinkensmeyer
321	Iola C	Humble	Iola	410	Shattuc	T. M. Conrey	Gullick
322	Iola C	Texaco	Iola Coop	411	Boulder	Texaco	Boulder
323	Iola C	Texaco	Iola Coop	412	Centralia	F. Seip	Rothmeyer, Buehler & Coe
324	Kenner N	Indiana Farm Bureau	Theobald	413	Fairman	Louden	Ducomb- Krietler
325	Iola C	Tidewater	L. Moss "A"	Coles County			
326	Iola C	Tidewater	M. J. Reed	500	Mattoon	Humble	Mattoon
327	Passport	Shakespeare	Passport U	501	Mattoon	Noknil	Mattoon
328	Sailor Springs C	Ashland	Sailor Springs	502*	Westfield	General Operations	Johnson
329	Sailor Springs C	Skiles	N. Sailor Springs U	503	Mattoon	W. Duncan	Redman-Macke
330	Kenner	Texaco	Kenner U	504	Mattoon	D. Carroll	
331	Flora S	Cullum & Lawhead	Given- McGrew U	505	Cooks Mills C	J. A. Markey	Cooks Mills U
332	Hord S C	Shirk & Webster	S. Hord U	506	Mattoon	D. Carroll	
333	Sailor Springs C	Rock Island	Bowers	507	Mattoon	W. Duncan	Redman-Macke
334	Sailor Springs C	Cities Service	Wyatt	508	Cooks Mills C	Ashland	Cooks Mills U
335	Clay City C	Pure	Weiler School C	509	Mattoon	Ashland	N. Mattoon U
Clinton County				Crawford County			
400	Bartelso	T. R. Kerwin	Belle Oil	600	Bellair	Forest	Bellair (11)
401	Bartelso	Robbin	Robbin U	601	Bellair	Pure	Fulton
402	Bartelso	H. S. Woodard	H. S. Wood- ard, Trustee	602	Main C	Ashland	Birds 1
403	Centralia	W. O. Morgan	Centralia Field	603	Main C	Ashland	Birds 2
				604	Main C	Bell Bros	Barrick
				605	Main C	M. F. Roberts	Bishop
				606	Main C	Forest	Grogan 2 (26)

* Abandoned. + Pressure maintenance.

Table 23 - Continued

No.	Oil Pool C=Consolidated	Operator	Project U=Unit	No.	Oil Pool C=Consolidated	Operator	Project U=Unit
Cumberland County (Continued)				Edwards County (Continued)			
701*	Siggins	C. R. Cochonour	Vevay Park	1019	Ellery E	Herndon	Ellery E
702	Siggins	Forest	Siggins	1020	Parkersburg C	Yingling	Parkersburg U
703*	York	Trans- Southern	York	1021	Browns	Superior	Browns U
704	Lillyville	Indiana Farm Bureau	Krogman	1022	Browns	Superior	Browns U
705	Siggins	E. M. Farwell	McVey	1023	Browns	Superior	Browns U
706	York	C. Keyser	Unit	1024	Albion C	Superior	S. Albion U 2
Douglas County				1025	Maple Grove C	Mammoth	Maple Grove
800	Bourbon C	M. H. Richard- son		Effingham County			
801	Chesterville E	T. W. George	Arcola U	1100	Sailor Springs C	Ashland	Bible Grove
Edwards County				1102	Sailor Springs C	W. Duncan	Brink
1000	Albion C	Bayview	Biehl U 2	1103	Sailor Springs C	Kingwood	Nadler & Joergens
1001	Albion C	Continental	S. Albion U. Biehl U	1104	Mason N	Texaco	Mason N U
1002	Albion C	Jarvis Bros & Marcell	H. Wick W	1105	Hill E	Wichita Rv.	Hill E U
1003	Albion C	Superior	S. Albion S.R.P. U 1	1106	Sailor Springs	Sohio	Rosi. Lime U
1004	Albion C	Superior	S. Albion U 2	Fayette County			
1005	Albion C	Superior	S. Albion U 2	1200	Louden	W. H. Fish- burn	Rhodes & McCloy
1006	Albion C	Tidewater	S. W. Albion Sand U	1201	Louden	W. L. Belden	Hinton U
1007	Ellery E	Herndon	Ellery E U	1202	Louden	W. L. Belden	Unit 25
1008	Maple Grove C	Ashland	Bennington	1203	Louden	D. L. Burtschi	D. L. Burt- schi U
1010*	Samsville N	Ashland	W. Salem	1204	Louden	Humble	Louden
1011	Albion C	Continental	S. Albion L. Biehl	1205	Louden	Doran	Stewart & Dial U
1012	Albion C	Superior	S. Albion U 2	1206	Louden	General Am.	Devore Coop
1013+	Bone Gap C	V. R. Gal- lagher	Bone Gap U	1207	Louden	Jarvis Bros & Marcell	Homan
1014*	Albion C	Continental	Stafford	1208	Louden	Jarvis Bros & Marcell	Yakey
1015*	Albion C	First Nat'l Pet. Trust	Brown	1209	Louden	B. Kidd	B. F. Owens
1016	New Harmony C	Skiles	Siegert Bottoms	1210	Louden	Kingwood	Yolton
1017	Parkersburg C	Yingling	Parkersburg U	1211	Louden	Kingwood	Yolton
1018	Albion C	Superior	E. Albion U	1212	Louden	F. E. Wood	Louden Ext.
				1213	Louden	J. J. Lynn Estate	E. C. Smith
				1214	Louden	Mabee	Homan

* Abandoned. + Pressure maintenance.

Table 23 - Continued

No.	Oil Pool C=Consolidated	Operator	Project U=Unit	No.	Oil Pool C=Consolidated	Operator	Project U=Unit
Fayette County (Continued)				Franklin County (Continued)			
1215	Louden	Mabee	Koberlien	1309	Dale C	C. E. Brehm	Westbrook U
1216	Louden	Mobil	Rhodes- Watson	1310	Dale C	C. E. Brehm	Lario Trustee "A" U
1217	Louden	W. C. McBride	Stokes- Weiler	1311	Akin	C. E. Brehm	Akin S E U
1218	Louden	Shell	N. Loudon U	1312+	Whittington W	Kewanee	Plains
1219	Louden	Shell	S. Loudon U	Gallatin County			
1220	Louden	R. H. Troop	Durbin & Force Area	1400	Inman W C	T. A. Ferral	
1221	Louden	R. H. Troop	Hiatt U	1401	Inman W C	V. R. Galla- gher	Bradley U
1222	St. James	H. Rosenthal	Washburn 13	1402	Inman W C	Gulf	W. Inman U
1223+	Louden	Humble	Louden Devonian	1403	Inman W C	Gulf	W. Inman U
1224	Louden	Mobil	Louden	1404*	Inman W C	Phillips	Levert
1225	Louden	L. B. Hoss	Unit	1405	Herald C	Continental	Cottonwood N U
1226*	Wilberton	W. L. Belden		1406	Inman E C	Humble	Big Barn
1227	Louden	Mobil	Buzzard Bros	1407	Inman E C	Humble	Kerwin- Crawford
1228	Louden	Kingwood	Smith	1408	Inman E C	Humble	West U
1229	Louden	Texaco	Louden S	1409	Inman E C	Natural Resources	Big Barn
1230	Louden	Jarvis Bros & Marcell	Sinclair	1410	Inman E C	Natural Resources	Big Barn
1231	Louden	R. H. Troop	W. A. Eagleton	1411	Inman E C	Sun	Inman E
1232	Louden	Hughes		1412	Junction	M. Young- blood	Junction U
Franklin County				1413	Roland C	Indiana Farm Bureau	Omaha U
1300	Benton	Shell	Benton U	1414+	Omaha	Humble	Omaha
1301	W. Frankfort C	Shell	W. Frankfort U	1415	Inman W C	Skiles	Inman W
1302	Thompsonville E	Humble	E. Thompson- ville	1416	Shawneetown N	Sun	L. Miller
1303	Thompsonville N	Humble	N. Thompson- ville U	1417	Ab Lake W	Coy	Ab Lake W U
1304	Thompsonville N	J. & W.	N. Thompson- ville U	1418	Roland C	Humble	S. Roland
1305	Thompsonville N	J. & W.	Thompsonville U	1419	Herald C	Ashland	S. W. New Haven U
1306	Sesser C	W. I. Lewis	Sesser U	1420	Inman E C	J. Simpkins	Haven Water- flood
1307	W. Frankfort C	Sohio	Horn-Dimond "B"	1421	Ab Lake W	Coy	Ab Lake W U
1308	W. Frankfort C	Shell	Orient U	1422	Inman E C	Crawford	Black
				1423	Inman E C	Crawford	E. Inman
				1424	Inman E C	Crawford	E. Inman

* Abandoned. + Pressure maintenance.

Table 23 - Continued

No.	Oil Pool C=Consolidated	Operator	Project U=Unit	No.	Oil Pool C=Consolidated	Operator	Project U=Unit
Gallatin County (Continued)				Hamilton County (Continued)			
1425	Inman E C	Sohio	Busick-FEB	1526	Dale C	Sinclair	J. H. Stelle
1426	Inman E C	Skelly	Egyptian Tile & Timber	1527	Dale C	Sinclair	J. H. Stelle
1427	Inman W C	Skelly	Schmidt "A"	1528	Dale C	Humble	Dale-Hood- ville Coop
Hamilton County				1529	Dale C	Humble	Dale-Hood- ville Coop
1500	Bungay C	Texaco	Blairsville U	1530	Bungay C	Texaco	J. A. Lynch
1501*	Dale C	C. Pearson	N. Rural Hill U	1531	Dale C	Stewart	Williams Heirs-Knight Coop
1502	Dale C	Phillips	Cantrell U	Jasper County			
1503	Dale C	Phillips	W. End U	1900*	Clay City C	Ashland	Boos E
1504	Dale C	Texaco	W. Dale U	1901	Clay City C	Robinson & Puckett	N. E. McClos- ky U 1
1505	Mill Shoals	B. Kidd	Gardner	1902	Clay City C	Robinson & Puckett	S. W. McClos- ky U 2
1506	Mill Shoals	Sohio	B. R. Gray Trustee	1903	Olney C	Gulf	Bessie
1507	Dale C	Stewart	B. Jones	1904	Olney C	Sohio	Dundas E U
1508	Dale C	Texaco	C. W. Hood	1905*	Ste. Marie	J. R. Randolph	Ste. Marie
1509	Dale C	Texaco	C. W. Hood	1906	Willow Hill E	Pure	Willow Hill U
1510	Dale C	Gulf	W. Rural Hill U	1907*	Willow Hill E	M. M. Spickler	
1511	Dale C	Gulf	W. Rural Hill U	1908	Clay City C	Zanetis	P. Kelley 3
1512	Dale C	Mobil	Rural Hill	1909	Clay City C	Zanetis	C. Harvey 2
1513	Dale C	C. E. Brehm	Cantrell U	1910	Clay City C	Pure	E. Newton U
1514	Dale C	Shell	Rural Hill U	1911	Clay City C	E & G	Cowger- Shafer U
1515	Rural Hill N	Inland	Moore U	1912	Ste. Marie	J. B. Murvin	Ste. Marie Pool U
1516	Dale C	Stewart	Craddock-Arms	1913	Clay City C	Doran	Bergbower
1517	Walpole	Capitol Oil	Walpole	Jefferson County			
1518	Walpole	Texaco	Walpole U	2000	Boyd	Superior	Boyd Field U
1519	Dale C	J. A. Dull		2001	Boyd	Superior	Boyd Field U
1520	Dale C	Farrar	Tedford	2002	Divide C	Gulf	W. D. Hollo- way
1522	Bungay C	Ohio	Unit	2003*	Markham City	Tidewater	Newton Investment
1523	Dale C	E. H. Kaufman	N. Rural Hill U	2004	Markham City W	Gulf	W. Markham City U
1524	Dale C	E. H. Kaufman	S. E. Rural Hill	2006+	Salem C	Humble	Dix (R. & P. M.)
1525	Dale C	Farrar	Tedford				

* Abandoned. † Pressure maintenance.

Table 23 - Continued

No.	Oil Pool C=Consolidated	Operator	Project U=Unit	No.	Oil Pool C=Consolidated	Operator	Project U=Unit
Jefferson County (Continued)				Lawrence County (Continued)			
2008	Ina	Kewanee	Jeff-Karber- Threl "B"	2230*	Lawrence	Ree	Snyder
2009	Roaches N	Texaco	Roaches N U	2231	Allendale	Illinois Oil Co.	Sand Barren U 1
2010	Salem C	Humble	Salem C - Aux Vases	2232	Allendale	Sand Barren	Sand Barren U 2
2011	Coil W	Gulf	Coil W U	2233	Lawrence	Bradley	Pepple
2012	Coil W	Gulf	Coil W U	2234	Lawrence	Bradley	L. Gillespie
2013	King	Texaco	Baker-Bumpus- Smith U	2235	Lawrence	Bradley	L. Gillespie
2014	Oakdale	Texaco	Green-Vander- heid U	2236	Lawrence	Bradley	L. Gillespie
2015	Roaches N	E. M. Self	Wacker	2237	Lawrence	R. S. Thompson	Stoltz Heirs
Lawrence County				2240	Lawrence	D. S. Huddleston	Vandermark- Albrecht U
2200*	Lawrence	Calvan American	Piper	2241	Lawrence	Bradley	Fyffe
2201	Lawrence	Baldwin & Baldwin	Cummins Farm	2242	Lawrence	Bradley	O'Donnell
2202	Lawrence	Bradley	C. M. Perkins	2243	Lawrence	Gulf	Bell U
2203	Lawrence	Bradley	C. M. Perkins	2244	Lawrence	Gulf	Bridgeport U
2204	Lawrence	Turner	Applegate	2245	Lawrence	Bradley	S. Gillespie
2205*	Lawrence	W. Duncan	L. C. David	2246	Lawrence	Bradley	S. Gillespie
2206	Lawrence	T. W. George	Klondike	2247	Lawrence	Fairfield Salvage	Buchanan
2207	Lawrence	Tekoil	Gray Area	2249	Lawrence	W. C. McBride	Hinkle
2208	Lawrence	W. C. McBride	Crump "40"	2250	Lawrence W	Houchins	S. Sumner U
2209	Lawrence	W. C. McBride	Crump U 1	2251	Lawrence	W. C. McBride	Combs
2210	Lawrence	W. C. McBride	Neal	2252	Lawrence	W. C. McBride	Bower-Ross
2211	Lawrence	Murphy	Stoltz	2253	Lawrence	W. C. McBride	Fyffe (39)
2212	Lawrence	Murphy	Stoltz	2254	Lawrence	W. C. McBride	Dalrymple
2213	Lawrence	Ohio	14 Projects	2255	Lawrence	Bradley	Breen
2214	Lawrence	Ohio	9 Projects	2256	Lawrence	Bradley	Breen
2216	Lawrence	Ohio	4 Projects	2257	Lawrence	Bradley	Pepple
2217	Lawrence	Shakespeare	S. Bridgeport U	2258	Lawrence	Bradley	Whittaker Area
2218	St. Francis- ville E	J. E. Bauer	All States Life	2259	Lawrence	Bradley	Whittaker Area
2229*	Lawrence	Calvan American	Waller				

*Abandoned.

Table 23 - Continued

No.	Oil Pool C=Consolidated	Operator	Project U=Unit	No.	Oil Pool C=Consolidated	Operator	Project U=Unit
Lawrence County (Continued)				Montgomery County			
2260	Lawrence	Bradley	E. J. Seed	2900	Raymond E	Mobil	Foster- Poggenpohl U
2261	Lawrence	Bradley	E. J. Seed	Perry County			
2262	Lawrence	W. C. McBride	Fyffe U	3100	Tamaroa S	Illinois Lease Operation	Tamaroa Field
Macoupin County				Richland County			
2400	Staunton W	J.Waitukaitis	Dehne	3400	Calhoun C	Ashland	Calhoun
Madison County				3401	Calhoun C	S. Tipps	Bohlander U
2500*	Livingston	W. H. Krohn		3402*	Clay City C	Ashland	Noble N
2501	Livingston	M. W. McConnell	C. & O. Henke U	3403	Clay City C	Continental	E. Noble U
2502	Livingston	W. H. Krohn	Kroeger	3404	Clay City C	Pure	Old Noble
Marion County				3405	Clay City C	Pure	S. Noble
2600	Odin	Ashland	Odin	3406	Clay City C	Pure	S. W. Noble U
2601	Patoka	Karchmer	Patoka Benoist	3407	Olney C	Gulf	E. Dundas U
2602	Patoka	Karchmer	Patoka Rosiclare U	3408	Olney C	Texaco	E. Olney U
2603	Patoka	Karchmer	Stein U	3409	Parkersburg C	Ohio	Parkersburg U
2604	Salem C	Texaco	Rosiclare Sand U	3410*	Seminary	R. P. Johnson	Seminary
2605	Salem C	Texaco	Salem U	3411*	Stringtown	N. C. Davies	Stringtown
2606	Salem C	Texaco	Salem U	3412*	Stringtown	Helmerich & Payne	Stringtown
2607	Salem C	Texaco	Salem U	3413	Stringtown	Skelly	Peter Von Alman
2608	Salem C	Texaco	Salem U	3414*	Stringtown	Murvin & Steber	
2609	Tonti	Tamarack	Branch	3415*	Parkersburg C	Calvert	Parkersburg
2610	Wamac	L. H. Jonas	Wamac	3416*	Clay City C	Ohio	Noble Coop U
2611	Wamac	Wamac	Wamac U	3417	Passport S	Continental	Passport S U
2612	Salem C	T. M. Conrey	Sebastian	3418	Clay City C	Pure	Wakefield U
2613	Iuka	Texaco	Iuka	3419	Clay City C	B. Kidd	Wakefield- Harrell U
2614	Patoka	Kewanee	W. Patoka Trenton U	3420	Olney C	Texaco	Olney
2615	Brown	E. Bierman		3421	Clay City C	McDowell & Murvin	Wakefield Pool U
2616	Raccoon Lake	Texaco	Raccoon Lake U	3422	Olney S	Ring & Kinsell	Unit
2617	Raccoon Lake	Texaco	Raccoon Lake U				

*Abandoned.

WATERFLOOD OPERATIONS

Table 23 - Continued

No.	Oil Pool C=Consolidated	Operator	Project U=Unit	No.	Oil Pool C=Consolidated	Operator	Project U=Unit
Saline County				Wabash County (Continued)			
3600	Harco	Phillips	Noble "A"	3917*	Mt. Carmel	Tamarack	G. Dunkel
3601*	Harco E	Sun	Harco W.F.P. U	3918	Mt. Carmel	D. H. Lovellace	Wabash U
3602	Harco E	Sun	Harco W.F.P. U	3919	Mt. Carmel	T. W. George	N. Mt. Carmel
3603	Eldorado C	F. King	Endicott U	3921	Mt. Carmel	O'Meara Bros.	Mt. Carmel U
3604	Raleigh S	C. E. O'Neal	Raleigh U	3922	Mt. Carmel	Shell	Mt. Carmel U
3605	Raleigh	Kewanee	Raleigh U	3923	Mt. Carmel	Skiles	Chapman- Courter U
3606	Harrisburg	W. C. McBride	Harrisburg N	3924	Mt. Carmel	Skiles	W. Mt. Carmel
3607	Eldorado E	G. L. Reasor	Porter- Waterflood	3925	Mt. Carmel	Texaco	Stein
Shelby County				3926	New Harmony C	Ashland	Maud N
3800	Stewardson	W. L. Belden		3927	New Harmony C	Ashland	Ravenstein
Wabash County				3928	New Harmony C	Cities Service	Brines U
3900	Allendale	C. A. Hamman	Gilliate	3929	New Harmony C	G. R. Co.	Shultz
3901	Allendale	W. H. Bass	White	3930	New Harmony C	G. R. Co.	Shultz
3903	Allendale	Coon Creek	Taylor- Wheatley U	3931	New Harmony C	Skiles	Siegert Bottoms
3904*	Allendale	Tamarack	Patton	3932	New Harmony C	Skiles	E. Maud
3905	Allendale	Forest	Allendale	3933	New Harmony C	Skiles	E. Maud
3906	Allendale	T. W. George	Young	3934	New Harmony C	Skiles	W. Maud
3907*	New Harmony C	T. W. George	E. Maud	3935	New Harmony C	Sohio	Updegraff "A"
3908	Allendale	Illinois Oil Co.	Shaw-Smith- Nigh	3936	New Harmony C	Luboil	Helm
3909	Allendale	B. Kidd	Allendale U	3937	New Harmony C	Luboil	Helm
3910	Allendale	Unknown	Mattaliano et al.	3938	New Harmony C	Luboil	Helm
3912*	Browns E	T. W. George	Bellmont	3939	New Harmony C	Luboil	Helm
3913	Browns E	Mobil	Bellmont	3940	New Harmony C	Luboil	Helm
3914	Browns E	Mobil	S. Belmont U	3941*	Mt. Carmel	First Nat'l Pet. Trust	S. Courter
3915*	Keensburg S	Vickery	A. P. Garst	3942*	Berryville C	Phillips	Tarply
3916	Lancaster S	Ashland	Lancaster S	3943*	Berryville C	Phillips	Townsend
				3944*	Allendale	Ind. Farm Bureau	Woods
				3945*	Friendsville N	Mobil	J. L. Lither- land
				3946*	Mt. Carmel	First Nat'l Pet. Trust	

*Abandoned.

Table 23 - Continued

No.	Oil Pool C=Consolidated	Operator	Project U=Unit	No.	Oil Pool C=Consolidated	Operator	Project U=Unit
Wabash County (Continued)				Wabash County (Continued)			
3947*	New Harmony C	T. W. George	E. Maud	3973	Allendale	Universal Operating	S. Allendale U
3948	New Harmony C	A. K. Swann	Heil	3974	New Harmony C	Skiles	Friends Grove U
3949	New Harmony C	West	C. W. Raber U	3975	New Harmony C	Skiles	Friends Grove U
3950	Allendale	Ashland	Allendale	3976	New Harmony C	Skiles	Friends Grove U
3951	Allendale	L. & M.	Allendale W. F. U	3977	Mt. Carmel	Skiles	W. Mt. Carmel
3952*	Allendale	L. & M.	S. Price	3978	Allendale	Tamarack	Cogan
3953	Friendsville N	J. W. Sanders	Friendsville N U	3979	Allendale	Tamarack	Hershey- Cogan
3954	Lancaster	Hayes-Wolf Bros.	Lancaster U	3980	New Harmony C	D. Carroll	Friendsville Field
3955*	New Harmony C	Indiana Farm Bureau	Landis-Goins	3981	New Harmony C	Mobil	G. A. Sturman
3956	New Harmony C	Skiles	Cowling-Raber	3982	New Harmony C	Mt. Carmel	Friendsville U
3957	New Harmony C	Skiles	Broster "F"	3983	Mt. Carmel	Superior	Mt. Carmel N U
3958+	Mt. Carmel	T. W. George	Dunkel- Johnson	3984	Mt. Carmel	Superior	Mt. Carmel N U
3959+	New Harmony C	T. W. George	Keensburg U	3985	New Harmony C	Cities Service	Post-Ley U
3960	New Harmony C	Continental	A. E. Shultz "A"	3986	New Harmony C	Cities Service	Post-Ley U
3961	New Harmony C	Continental	A. E. Shultz "A"	3987	Rochester	J. H. Gilliam	Kennard
3962	New Harmony C	P. Rossi	4W	3988	New Harmony C	Coy	Kerwin U
3963	New Harmony C	Coy	Kerwin U	3989	New Harmony C	Coy	Kerwin U
3964	Allendale	Indiana Farm Bureau	Allendale U	3990	Mt. Carmel	C. C. White	Buchanan
3965	New Harmony C	Luboil	Helm	Washington County			
3966	Allendale	Tamarack	Cogan	4000	Cordes	Shell	Cordes Coop
3967	New Harmony C	R. K.	Cowling U	4001	Irvington	L. Kapp	Molting Field
3968	Rochester	J. H. Gilliam	Kennard	4002	Irvington	M. Mazzarino	Kasten U
3969	Allendale	Ashland	Friendsville Coop	4003	Dubois C	H. Mabry	Peek
3970	Rochester	Ashland	N. Rochester U	4004	Irvington	Mobil	C. Koelling
3971	Allendale	T. W. George	Young	4005	Beaucoup S	Shell	Beaucoup S U
3972	Rochester	Ashland	Rochester Coop				

*Abandoned. +Pressure maintenance.

Table 23 - Continued

No.	Oil Pool C=Consolidated	Operator	Project U=Unit	No.	Oil Pool C=Consolidated	Operator	Project U=Unit
Wayne County				Wayne County (Continued)			
4100	Aden C	L. V. Horton	Aden N	4127	Maple Grove C	Winmar	W. Bennington
4101	Aden C	Texaco	Aden S	4128*	Goldengate C	Cities Service	Goldengate
4102	Aden C	Texaco	Aden S	4129*	Barnhill	Wayne Development	Walter
4103	Barnhill	Ashland	Barnhill	4130*	Clay City C	Gulf	Winona
4104	Barnhill	Willets & Paul	Barnhill U	4131	Clay City C	Pure	S. E. Jordan School U
4105*	Barnhill	Willets & Paul	Barnhill U	4132*	Clay City C	Texaco	E. Galligher
4106*	Barnhill	Willets & Paul	Simpson U	4133*	Goldengate C	Illinois Mid-Con- tinent	A. E. Seiffert
4107	Clay City C	Continental	Wilson "B"	4134	Johnsonville C	Pure	Crisp U
4108	Clay City C	Tamarack	Pierce	4135	Johnsonville C	Texaco	Johnsonville U
4109	Clay City C	F. & W.	Miller- Lambrich U	4136	Clay City C	Slagter	Blessing- Chrisman U
4110	Clay City C	General American	Covington U	4137	Zenith N	Mobil	Zenith N U
4112	Clay City C	Pure	Jordan School U	4138	Goldengate C	Skiles	O'Daniel U
4113	Clay City C	Pure	N. E. Jordan School U	4139	Goldengate C	T. G. Jenkins	Pond Creek U
4114	Clay City C	Pure	Van Fossan U	4140	Clay City C	C. H. Dollerhide	Barnard-Holman- Liston U
4115	Clay City C	Robinson & Puckett	N. Puckett U	4141	Clay City C	Cullum & Lawhead	Miller-Thomp- son-Garrison U
4116	Clay City C	Robinson & Puckett	S. Puckett U	4142	Clay City C	Pure	Elm River U
4117	Clay City C	Shakespeare	E. Banker School	4143	Clay City C	Pure	Feller C
4118	Clay City C	Shakespeare	E. Geff U	4144	Clay City C	Gulf	W. Geff U
4119	Clay City C	Kirby	Kirby	4145	Goldengate C	N. V. Duncan	Scottsville C
4120*	Covington S	General American	Heidinger- Vogel	4146	Clay City C	F. & W.	Mt. Erie U
4121	Johnsonville C	Texaco	Johnsonville U	4147	Clay City C	Cullum & Lawhead	Robertson- Bing-Crews U
4122	Johnsonville C	Texaco	Johnsonville U	4148	Goldengate C	Tamarack	W. Ellery U
4123	Goldengate C	Cities Service	Goldengate U	4149	Goldengate C	Tamarack	W. Ellery U
4124*	Goldengate C	Cities Service	Kletzker U	4150	Goldengate C	Tamarack	W. Ellery U
4125	Keenville	N. A. Bald- ridge	Keenville U	4151	Clay City C	H. H. Weinert Est.	S. Boyleston U
4126	Keenville	W. Duncan	Keenville U	4152	Clay City C	Pure	Oregon School U

*Abandoned.

Table 23 - Continued

No.	Oil Pool C=Consolidated	Operator	Project U=Unit	No.	Oil Pool C=Consolidated	Operator	Project U=Unit
Wayne County (Continued)				White County (Continued)			
4153	Clay City C	Pure	S. E. Enterprise U	4224	New Harmony C	Herndon & Ashland	Calvin W F
White County				4225	New Harmony C	Herndon & Ashland	Calvin W F
4200	Albion C	Bayview	Biehl U 1	4226	New Harmony C	Herndon & Ashland	Calvin W F
4201*	Albion C	Concho	N. Crossville U	4227	New Harmony C	Inland	Bowman's Bend U
4202*	Albion C	Concho	N. Crossville U	4228*	Concord C	Great Lakes Carbon	McClosky
4203	Centerville E	Tekoil	E. Centerville U	4229*	Concord C	Phillips	Dallas
4204	Centerville E	Tekoil	E. Centerville U	4230*	Maunie S C	Mobil	Tar Springs U
4205*	Concord C	B. Kidd	Kerwin-Concord	4231	New Harmony C	Sinclair	M. S. Donald
4206	Concord C	Phillips	Kerwin	4232*	Phillipstown C	Skiles	L. O. Cleveland
4207	Concord C	Phillips	Tuley	4233	New Harmony C	Sun	Ford "B"
4208	Concord C	C. E. Brehm	Concord N U	4234*	New Harmony C	Sun	Ford "B"
4209	Enfield	Ryan	S. Enfield U 2	4235	New Harmony C	Superior	Kern-Hon U
4210	Herald C	C. E. Brehm	Herald W U	4236	New Harmony C	Superior	New Harmony Field U
4211	Herald C	Mabee-Allen	Ackerman U	4237	New Harmony C	Superior	New Harmony Field U
4212	Herald C	Q. B. Mitchell	Bayley U	4238	New Harmony C	Superior	Waltersburg Sand U
4213	Maunie S C	Mobil	Palestine Sand U	4239*	Maunie S C	Mobil	Maunie Coop
4214	New Harmony C	J. Simpkins	Hon-Bump-Crawford	4240	New Harmony C	Tidewater	E. S. Dennis "A"
4215	New Harmony C	J. Simpkins	Hon-Bump-Crawford	4241	New Harmony C	Tidewater	O. R. Evans
4216	New Harmony C	J. Simpkins	Hon-Bump-Crawford	4242	New Harmony C	Tidewater	O. R. Evans
4217*	New Harmony C	J. Simpkins	Arrow-McBride-Hon-Bump-Crawford	4243	New Harmony C	Tidewater	O. R. Evans
4218	New Harmony C	Calstar	Ford	4244	New Harmony C	Tidewater	E. S. Dennis "A"
4219*	New Harmony C	Calstar	Ford "B"	4245*	Phillipstown C	C. E. Brehm	Phillipstown U "A"
4220	New Harmony C	Clark & Clark	Maunie N.U	4246*	Centerville E	Sun	E. Centerville
4222*	New Harmony C	Skiles	Smith-Davenport	4247	New Haven C	Hiawatha	New Haven U
4223*	New Harmony C	Sun	Greathouse	4248	New Haven C	Hiawatha	New Haven U
				4249	Phillipstown C	C. E. Brehm	Phillipstown U "B"
				4250	Phillipstown C	Bayview	Grayville U

*Abandoned.

WATERFLOOD OPERATIONS

Table 23 - Continued

No.	Oil Pool C=Consolidated	Operator	Project U=Unit	No.	Oil Pool C=Consolidated	Operator	Project U=Unit
White County (Continued)				White County (Continued)			
4251	Phillipstown C	British American	N. Calvin U	4279	Trumbull C	E. Price	
4252*	Phillipstown C	Mobil	N. Calvin	4280	New Harmony C	Superior	Ford U
4253	Phillipstown C	Phillips	Flora U	4281	Concord C	Ashland	Concord U
4254	Phillipstown C	Phillips	Laura	4282	Maunie N C	Ashland	Ribeyre Island U
4255	Phillipstown C	Phillips	Phillipstown U	4283	New Harmony C	J. H. Vandebark	Calvin-Hon U
4256*	Phillipstown C	Sun	Phillipstown U	4284	New Harmony C	Texaco	M. E. Glaze Coop
4257	Phillipstown C	Sun	Phillipstown U	4285	New Harmony C	Texaco	M. E. Glaze Coop
4258	Roland C	Humble	S. W. Roland U	4286	New Harmony C	Skiles	Calvin Griffin C
4259	Roland C	Humble	Stokes U	4287*	New Harmony C	Skiles	Calvin Griffin C
4260	Roland C	Pure	Stokes-Brownsville U	4288	New Harmony C	Skiles	Calvin Griffin C
4261	Roland C	Shell	Iron U	4289	New Harmony S (Indiana)	Indiana Farm Bureau	Mink Island U
4262*	Roland C	T. W. George	Pankey-Morehead U	4290	New Harmony C	Texaco	M. E. Glaze Coop
4263	Storms C	Sinclair	Storms Pool U	4291	New Harmony C	Texaco	M. E. Glaze Coop
4264+	Enfield	Ryan	S. Enfield U1	4292	Enfield	Ryan	S. Enfield U 3
4265+	Maunie S C	NAP Co.	S. Clear Pond	4293	New Harmony C	Sun	Ford "B"
4267*	Centerville E	D. B. Lesh	Centerville E	4294	New Harmony C	Sohio	Gray "H" & "C"
4268*	Maunie S C	Mobil	Tar Springs U 2	4295	Storms C	Tamarack	Hanna
4269*	New Harmony C	Sun	Ford "A"	4296	Storms C	NAP Co.	McQueen
4270*	Phillipstown C	Sun	Phillipstown	4297	Centerville E	Tekoil	E. Centerville U
4271*	Storms C	Mabee	Storms	4298	Phillipstown C	Eason	Clark Benoist
4272	Maunie N C	G. C. Schoonmaker	Maunie W U	4299	Concord C	Crescent	Concord
4273	Maunie S C	Skiles	Brown-Alford	4300	New Harmony C	Indiana Farm Bureau	Reeves U
4274	New Harmony C	Mobil	J. J. Bond	4301	New Harmony C	Mabee	O. Smith 11 & 14
4275	New Harmony C	Pure	Calvin C	4302	New Harmony C	Mabee	O. Smith 4
4276	New Harmony C	Mabee	O. Smith 1 & 4	4303	New Harmony C	B. Kidd	A. Gray "H"
4277	Phillipstown C	Kirby	W.P.B.S.U.				
4278	New Haven C	Sinclair	G. N. Boetticher				

*Abandoned. +Pressure maintenance.

Table 23 - Continued

No.	Oil Pool C=Consolidated	Operator	Project U=Unit	No.	Oil Pool C=Consolidated	Operator	Project U=Unit
White County (Continued)				White County (Continued)			
4304	Herald C	C. E. Brehm	New Haven U	4324	New Harmony C	J. Simpkins	Boulting-house
4305	New Harmony C	Calstar	Ford "A"	4325	Concord C	S & M Oil Co.	N. Concord U
4306	New Harmony C	Calstar	Ford "A"	4326	New Harmony C	Skiles	Calvin Griffin C
4307	New Harmony C	Calstar	Ford "A"	4327	Storms C	Tamarack	Calvert
4308	New Harmony C	Calstar	Ford "A"	4328	Maunie N C	Kirby	Coop
4309	Concord C	Humble	Concord Coop	4329	New Harmony C	Sinclair	M. S. Donald
4310	New Harmony C	Calstar	Ford "A"	4330	New Harmony C	V. R. Gallagher	Greathouse-U Waltersburg
4311	New Harmony C	Tidewater	O. R. Evans	4331	Concord C	Crescent	Concord
4312	New Harmony C	Superior	Fitton "A" U	4332	Concord C	Crescent	Tuley
4313	New Harmony C	W. Duncan	Hughes	4333	New Harmony C	Texaco	Bramlett
4314	New Harmony C	W. Duncan	Hughes	4334	New Harmony C	Texaco	Bramlett
4315	New Harmony C	W. Duncan	Hughes	4335	New Harmony C	Texaco	Bramlett
4316	New Harmony C	Bell Bros	Skiles	4336	Trumbull C	Texaco	Morre-Nibbling U
4317	New Harmony C	Skelly	Calvin-Griffith	4337	Mill Shoals	Texaco	Mill Shoals Coop
4318	Roland C	Indiana Farm Bureau	E. Roland W F	4338	New Harmony C	Coy	Gray
4319	New Harmony S (Indiana)	Indiana Farm Bureau	U Mink Island	4339	New Harmony C	Coy	Gray
4320	New Harmony C	J. Simpkins	Boulting-house	4340	Herald C	Indiana Farm Bureau	New Haven U
4321	New Harmony C	J. Simpkins	Boulting-house	4341	New Harmony C	West	D. Evans
4322	New Harmony C	J. Simpkins	Boulting-house	4342	Maunie N C	Herndon	
4323	New Harmony C	J. Simpkins	Boulting-house				

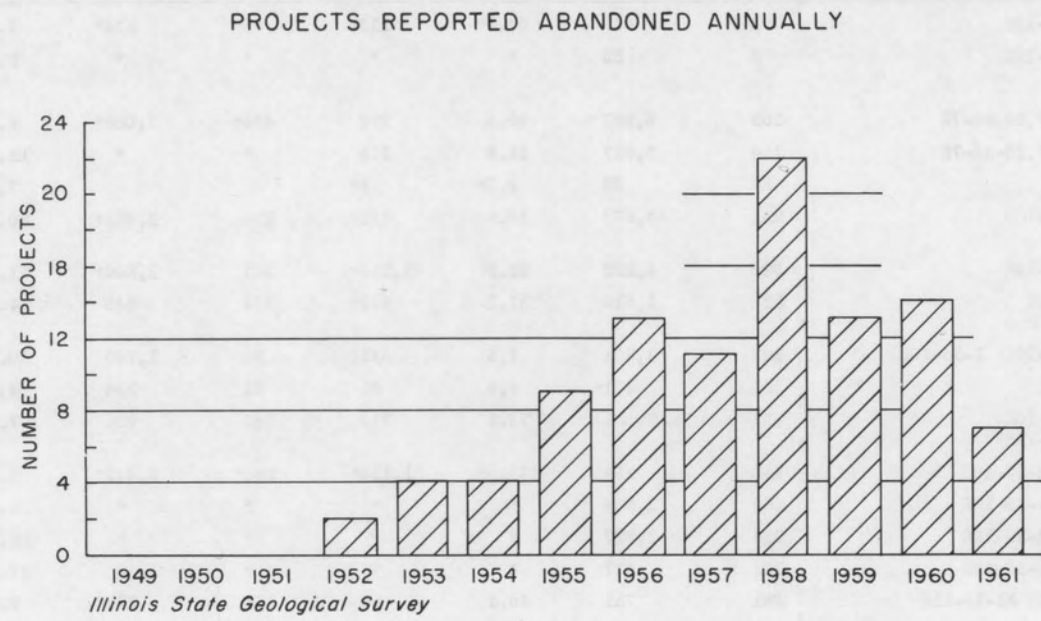


Fig. 6 — Abandoned waterflood projects in Illinois.

Map no.	General information							Production and injection statistics							
	Field C = Consolidated	Operator	County	Project U = Unit	Date first inj.	"Formation"	Section, T-R	Water inj., M bbls		Oil prod., M bbls		Water Prod., M bbls		Av. inj. per day per foot bbls	Maximum well-head pressure psi
								Total 1961	Cumulative 12-31-61	Total 1961	Cumulative 12-31-61	Total 1961	Cumulative 12-31-62		
1417	Ab Lake W	Coy	Gallatin	Ab Lake W U	7-59	Waltersburg	30,31-8S-10E	292	619	62.9*	113*	88*	214*	7.9	1,380
1421	Ab Lake W	Coy	Gallatin	Ab Lake W U	7-59	Aux Vases	30,31-8S-10E	8	52	*	*	*	*	2.2	1,370
4100	Aden C	L. V. Horton	Wayne	Aden N*	11-56	Aux Vases	34-2S-7E								
4101	Aden C	Texaco	Wayne	Aden S	8-46	Aux Vases	8,9,16,17,20-3S-7E	263	5,287	35.6	890	456*	7,008*	4.8	1,260
4102	Aden C	Texaco	Wayne	Aden S	8-46	McClosky	8,9,16,17,20-3S-7E	184	5,927	16.8	575	*	*	12.8	1,260
1311	Akin	C. E. Brehm	Franklin	Akin SE U	10-61	Aux Vases	25-6S-4E	57	57	3.7*	4*			7.7	0
1000	Albion C	Bayview	Edwards	Biehl U 2	12-50	Biehl	14-3S-10E	242	3,677	10.8	571*	190	1,458†	30.1	1,460
4200	Albion C	Bayview	White	Biehl U 1	8-49	Biehl	22,23-3S-10E	520	6,222	32.5	1,214*	201	1,304†	41.9	1,275
1001	Albion C	Continental*	Edwards	S. Albion U. Biehl U	12-55	U. Biehl	1,2-3S-10E	321	1,516	31.1	352†	174	545	24.4	950
1011	Albion C	Continental*	Edwards	S. Albion L. Biehl	4-51	L. Biehl	35,36-2S-10E; 1-3S-10E	103	1,801	7.5	645†	70	1,760	30.6	1,000
1002	Albion C	Jarvis Bros & Marcell	Edwards	H. Wick W	7-51	McClosky	24-2S-10E	51	471*	8.6	42	51	234	4.7	200
1003	Albion C	Superior	Edwards	S. Albion S.R.P. U 1	1-55	Biehl Waltersburg	25,36-2S-10E 30,31-2S-11E	428	2,531	73.1	715	146	956	7.5	1,500
1004	Albion C	Superior	Edwards	S. Albion U 2	8-56	Aux Vases	1,2,11,12-3S-10E	158	864	143.3*	1,114*	885*	5,442*	3.6	1,550
1005	Albion C	Superior	Edwards	S. Albion U 2	8-56	Biehl	1,2,11,12-3S-10E	389	1,869	*	*	*	*	5.6	1,100
1012	Albion C	Superior	Edwards	S. Albion U 2	7-46	Bridgeport*	1,2,11,12-3S-10E	216	2,827	†	†	†	†	16.1	550
1024	Albion C	Superior	Edwards	S. Albion U 2	6-60	Waltersburg*	1,2,11,12-3S-10E	231	327	†	†	†	†	17.3	1,200
1018	Albion C	Superior	Edwards	E. Albion U	11-59	Aux Vases	36-1S-10E; 31-1S-11E	281	731	46.4	66	113	173*	7.7	1,550
1006	Albion C	Tidewater	Edwards	S.W. Albion Sand U	1-55	Biehl	2,11,14-3S-10E	1,092	5,270	101.5	1,051*	580	2,765	10.0	
3950	Allendale	Ashland	Wabash	Allendale	9-55	Biehl	13-1N-12W	107	370	8.3	73*			19.5	460
3969	Allendale	Ashland	Wabash	Friendsville Coop	10-60	Biehl	30-1N-12W	343	388	49.4	59			62.6	550
3910	Allendale	Unknown*	Wabash	Mattaliano et al.	6-52	Biehl	15-1N-12W		45†		13†		23†		
3901	Allendale	W. H. Bass*	Wabash	White	6-52	Biehl	22-1N-12W				16†				
3903	Allendale	Coon Creek	Wabash	Taylor-Wheatley U	6-57	Biehl & Jord.	7,18-1N-12W	98	389	18.7	110	65*	168*	4.5	800
3905	Allendale	Forest	Wabash	Allendale	6-55	Biehl & Jord.	3,4,9,10-1N-12W	2,838	20,603	123.9	1,212*			9.6	930
3906	Allendale	T. W. George*	Wabash	Young		Biehl	36-2N-12W; 1-1N-12W		1,281*		86*				
3971	Allendale	T. W. George*	Wabash	Young	1-58	Benoist	1-1N-12W		208†						
3900	Allendale	C. A. Hamman*	Wabash	Gilliate Comm	11-54	Biehl	13-1N-12W	171	555	5.0	109			10.4	
2231	Allendale	Illinois Oil	Lawrence	Sand Barren U 1	9-57	Biehl & Jord.	26-2N-12W	223	819	21.5	132	204	433	2.4	800
3908	Allendale	Illinois Oil	Lawrence & Wabash	Shaw-Smith-Nigh	9-57	Biehl & Jord.	35-2N-12W	233	650	9.2	90*	216†	463†	18.7	800
3964	Allendale	Indiana Farm Bureau	Wabash	Allendale U	7-59	Benoist	13-1N-12W	470	1,039	57.5	96	5*	110*	8.1	150
3909	Allendale	B. Kidd	Wabash	Allendale U	9-53	Biehl & Jord.	3-1N-12W	417*	3,628*	16.7†	279†	290	2,328	17.8	
3951	Allendale	L. & M.	Wabash	Allendale W F U	4-58	Biehl	8-1N-12W	274	858	57.6	240*	195	355	15.0	900
2232	Allendale	Sand Barren	Lawrence	Sand Barren U 2	6-58	Biehl & Jord.	23,26-2N-12W	32	154	7.0	37			1.5	800
3966	Allendale	Tamarack	Wabash	Cogan	6-60	Jordan	35-2N-12W	66	102	29.6*	38*	6	9	5.0	375
3978	Allendale	Tamarack	Wabash	Cogan	9-61	Cypress	35-2N-12W	6	6	12.3*	12*	6	6	6.8	25
3979	Allendale	Tamarack	Wabash	Hershey-Cogan	10-61	Biehl	35-2N-12W	2	2	9.4*	9*	6	6	1.7	700
3973	Allendale	Universal Operating	Wabash	S. Allendale U	3-61	Biehl	15-1N-12W	66	66	7.2*	7*	14	14	9.0	820
100	Assumption C	Continental	Christian	Benoist	7-50	Benoist	3,4,9,10,15,16,21-13N-1E	317	7,079	45.1	1,202	113	2,331	3.5	820
101	Assumption C	Continental	Christian	Devonian	5-55	Devonian	3,9,10-13N-1E	864	3,772	139.5	459	187	476	16.5	330
102	Assumption C	Continental	Christian	Rosiclare	6-55	Rosiclare	3,4,9,10-13N-1E	179	584	81.5	481*	179	693*	13.6	470
4103	Barnhill	Ashland	Wayne	Barnhill	1-51	McClosky	26,34,35-2S-8E	845*	8,194*	41.9	1,153			25.7	
4104	Barnhill	Willets & Paul	Wayne	Barnhill U	10-56	Aux Vases	27,28-2S-8E	565	1,621	103.0*	336*	224	554	10.1	1,375
400	Bartelso	T. R. Kerwin*	Clinton	Belle Oil	4-52	Cypress	4-1N-3W		978†		132†		187†		
401	Bartelso	Robbin*	Clinton	Robbin U	11-53	Cypress	4-1N-3W		3,101†		619†		1,621†		

Reservoir statistics (average values)						Development as of 12-31-61						Injection water		Remarks	Map no.
Depth feet	Net pay thickness feet	Porosity percent	Permeability millidarcys	Oil gravity API	Oil viscosity centipoises	No. of wells		Injection pattern Mod = Modified Irr = Irregular	Acres per input well	Productive acres		Source Sd = Sand Gr = Gravel Prod = Produced Sh = Shallow	Type F = Fresh B = Brine		
						Inj.	Prod.			Under inj.	Total				
2,025	17.0	16.3	20	37.1	4.3 at 87°F	6	9	5-Spot	20	180	180	Sh Gr & Penn	F	* Includes 1421.	1417
2,750	10.0					1	2	5-Spot	20	20	30			* Included with 1417.	1421
														* Temporarily abandoned; no data 1957-61.	4100
3,200	10.0	22.0	150	34-40		10	15	Perimeter		640	1,050	Penn Sd & Prod	B	* Includes 4102.	4101
3,350	3.6			34-40	6.5 at 100°F	11	12	Perimeter		640	920	Penn Sd & Prod	B	* Included with 4101.	4102
3,100	20.0	20.0	250			4	11	Line Drive	10	190	190	Penn Sd	B	* Includes primary production since 10-61.	1311
1,450	22.0	19.3	303	35.8	6.0 at 84°F	1	5	Flank		68		River & Prod	F & B	* Includes primary production since 12-50. Operator adjusted. † Since 1-55.	1000
2,000	17.0	20.2	265	37.6	5.3 at 88°F	2	9	Flank		172		River & Prod	F & B	* Includes primary production since 8-49. † Since 1-55.	4200
2,075	18.0	20.0	200	33.4		2	5	Perimeter	10	110	130	Penn Sd & Prod	B	* Formerly operated by Calvert. † Includes primary production since 12-55; corrected to 1960 figure.	1001
2,080	9.2	16.8	384	32.3	10.4 at 85°F	1	4	Perimeter	10	120	120	Prod	B	* Formerly Calvert. † Includes primary production since 4-51.	1011
3,150	30.0			37.0		1	6	Irr		140	140	Prod	B	* Excluding 1-55 to 12-56.	1002
2,025	7.1	18.6	74	36.0	5.4 at 85°F	8	15	Flank		222	222	Gr Beds & Prod	F & B		1003
2,400	12.3	18.5	807	36.0	4.7 at 90°F					325	325				
2,550	10.0	20.6	53	37.5	4.3 at 98°F	12†	15†	5-Spot	20	243	243	Gr Beds & Prod	F & B	* Includes 1005, 1012, 1024. † Includes 1005.	1004
1,485	15.8	18.2	326	37.3	4.5 at 84°F	*	*	Irr	20	79	79	Gr Beds & Prod	F & B	* Included with 1004.	1005
1,870	12.2	20.2	323	35.7	3.5 at 83°F	3	7	Mod Flank		257	257	Gr Beds & Prod	F & B	* Previously abandoned. † Included with 1004.	1012
2,400	10.5	19.2	209	38.4	4.0 at 89°F	3	7	Flank		135	135	Gr Beds & Prod	F & B	* Carried with 1012, 1960. † Included with 1004.	1024
3,000	14.3	18.0	13	37.5	4.3 at 98°F	7	7	5-Spot	20	340	340	Penn Sd & Prod	B	* Corrected by operator.	1018
1,850	16.2	18.0	150	32.2		18	18	5-Spot	20	403		Purchased & Prod	F & B	* Includes primary production since 5-56.	1006
1,475	15.0			36.0		1	1	Irr		20	20	Penn Sd	B	* Includes primary production since 9-55.	3950
1,600	15.0	14.2	335			1	8	Line Drive		40	90	Prod	B		3969
														* No data 1957-61. † As of 1-54.	3910
														* No data 1957-61. † From 1-54 to 12-56.	3901
1,500	15.0	17.0	300			4	6	Irr	10	40	60	Penn Sd & Prod	B	* Estimated.	3903
1,500	15.0	17.7	390	37.0	12.3 at 60°F	29	18	Mod 5-Spot	25	300		Gr Beds	F	* Includes primary production since 6-55.	3905
	13.0	14.9	100												
1,375	17.0					9	5					Gr Beds	F	* Includes 3971; no data 1961.	3906
2,020	15.0					2	2					Gr Beds	F	* Included with 3906; no data 1961. † As of 12-60.	3971
1,485	15.0	24.6	1,066	32.5	9.4 at 78°F	3†	3	Irr		35	55	Well & Prod	F & B	* Formerly W. H. Bass. † Two line wells.	3900
1,300	26.0			34.0		10	9	Irr	7.5	75	75	Prod	F & B		2231
1,360	17.0			34.0		2	6	Irr		30	45	Prod	F & B	* Operator adjusted. † Estimated.	3908
2,120	20.0	20.0	115	36.5	10.0 at 60°F	8	18	Flank	10	180		River Gr	F	* Estimated.	3964
1,490	32.0	16.5	600	37.0	7.6 at 79°F	2	3	Irr	20	70	75	Sh Sd	F & B	* All water injection going in line well operated by Forest Oil Corp. Injection this lease estimated. † Total oil production.	3909
1,500	25.0	19.0	450	32.0		2	8	Irr		95	95	Sh Gr & Prod	F & B	* Includes primary production since 4-58.	3951
1,300	20.0			33.0		3	10	Irr	8	15	65	Prod	F & B		2232
1,434	18.0	18.0		34.0		2	3	Peripheral	5	18	179	Well	F	* Includes primary production since 6-60.	3966
1,902	9.0					1	1			10	179	Well	F	* Includes primary production since 9-61.	3978
1,388	12.0					1	1			10	55	Well	F	* Includes primary production since 10-61.	3979
1,480	13.0	15.0	160			2	4	Irr	20		256	Well	F	* Includes primary production since 3-61.	3973
1,050	13.0	19.0	100	38.0		19	12	Perimeter	10	350	410	Creek & Prod	F & B		100
2,300	13.0	12.0	50	40.0	1.8 at 88°F	11	27	Line Drive	20	600	800	Creek & Prod	F & B		101
1,150	12.0	22.0	561	39.3	2.6 at 78°F	3	11	Perimeter	10	208		Creek & Prod	F & B	* Includes secondary production of wells added to project.	102
3,350	9.0			39.0		10	10	Irr		260	320	Cypress	B	* Controlled dump flood.	4103
3,253	14.0	18.7	42	38.0	7.0 at 85°F	11	13	Mod Split Line	10	230	230	Well & Prod	B	* Includes primary production since 10-56.	4104
970	15.0	22.2	165	37.0	6.3 at 71°F	5	5	5-Spot	5	40	40	Tar Springs	B	* No data 1961. † As of 12-60. ‡ Includes primary production since 4-52.	400
980	12.0	20.0	110	36.9	6.3 at 71°F	12	19	5-Spot	10	200	200	Bethel	B	* No data 1961. † As of 12-60. ‡ Includes primary production since 11-53.	401

Reservoir statistics (average values)						Development as of 12-31-61					Injection water		Remarks	Map no.	
Depth feet	Net pay thickness feet	Porosity percent	Permeability millidarcys	Oil gravity API	Oil viscosity centipoises	No. of wells		Injection pattern Mod = Modified Irr = Irregular	Acres per input well	Productive acres		Source Sd = Sand Gr = Gravel Prod = Produced Sh = Shallow			Type F = Fresh B = Brine
						Inj.	Prod.			Under inj.	Total				
980	18.0	21.0	210	35.1		7	7	5-Spot	20	80	80	Prod	B	* Includes primary production since 7-48.	402
1,440	6.0	19.0	240	36.0		5	13	Peripheral		307	307	Pottsville	B	* Adjusted by operator. Includes primary production since 11-60.	4005
1,100	9.0			36.0		1	3	5-Spot	10	40	40	Prod	B	* As of 1-60.	409
550	38.0	17.1	148	32.4	16.0 at 77°F	56	50	5-Spot	4.4	200		Gr Bed	F	Previously subjected to gas injection.	600
560	21.0	18.6	149	32.0	18.7 at 77°F	120	89	5-Spot	4.4	443	443	Sh Gr	F		601
950	16.0	17.2	125	39.0	8.0 at 70°F	15	11	5-Spot	4	70	100	Penn Sd & Prod	F & B	* Abandoned 1-61. † Includes primary since 2-53.	666
2,100	35.0	19.0	65	37.5	3.5 at 86°F	108	109	5-Spot	20	2,200	2,200	Lake & Prod	F & B		1300
1,200	25.0			34.6		6	16	Perimeter	20	536	536	Devonian & Prod	B		411
														* No data 1958-61.	800
2,130	11.9	21.4	240	36.8	4.4 at 90°F	16	*	Peripheral		569	569	Lake & Prod	F & B	Previously used for gas storage. * Included with 2001.	2000
2,065	17.3	17.5	173	39.5	3.2 at 90°F	15	42†	Peripheral		1,564	1,564	Lake & Prod	F & B	* Pressure maintenance 6-45 to 1-55. † Since 1-55; includes 2000.	2001
1,650	12.0			33.0		1	3	Irr		40	40	Tar Springs	B		2615
2,640	8.2	16.8	106	36.8	4.5 at 92°F	2	7	Flank		198	198	Sd & Prod	B	* Includes 1022 and 1023.	1021
2,780	6.3	17.5	50	36.8	3.4 at 96°F	3	4	Split Line		176	176	Sd & Prod	B	* Included with 1021.	1022
2,720	7.0	17.4	50	36.8	4.6 at 93°F	1	7	Center		169	169	Sd & Prod	B	* Included with 1021.	1023
2,570				35.0	3.2 at 92°F	0	1	Line Drive	10	168	190	Tar Springs & Prod	B	* Includes primary production since 11-47.	3913
2,560				37.0		5	8	5-Spot	20	75	127	Penn & Prod	F & B	* Includes primary production since 4-56.	3914
						17	17			390		Cypress	B		1522
3,330	15.5	19.6	92	35-40	1.8 at 99°F	9	5	Irr	20	640	680	Prod	B		1500
3,300	25.0	17.8	107	37.0		2	7	Irr		160	160	Penn Sd & Prod	B	* Previously included with 1500.	1530
3,150	6.0			37.0		3	4	Irr		140	195	Cypress	B	* Includes primary production since 9-51. † Dump flood.	3400
3,130	10.0	11.2	67	39.0		1	2	Irr	20	160	280	Prod	B	* No data 1961. † As of 1-60.	3401
														* No data 1957-1961.	200
450	10	17.4	173	31.9	16.6 at 70°F	73	69	5-Spot	4.4	280		Gr & Prod	F & B	Previously subjected to gas injection. * Abandoned 3-31-61.	201
290	20.0	21.5	400	26.6	45.0 at 60°F	15	11	5-Spot	4.4	40	560	Gr & Prod	F & B		202
2,845	15.0	15.4	12	36.2	3.4 at 110°F	6	17	5-Spot	10	288	288	Palestine	B	* Includes 4204 & 4297. † Includes primary production since 3-56.	4203
2,460	8.0	15.9	98	35.0	4.1 at 105°F	4	15	5-Spot	10	214	214	Palestine	B	* Included with 4203.	4204
3,085	12.0	20.6	46	34.4	4.7 at 110°F	1	8	5-Spot	10	40	200	Palestine	B	* Included with 4203.	4297
1,368	10.0			38.0		1	7			40	40	Benoist & Cypress	B	* No data 1961. † As of 1-59.	403
1,210	10.0	20.5	80	37.0		2	7	Irr	10	40	40	Prod	B	* Since 1-61. † Includes primary production.	412
1,200	10.0	19.3	74	38.3		103	111	5-Spot	20	2060	2100	Devonian & Prod	B		404
1,350	9.0	21.1	225												
1,350	19.0	19.6	186												
1,750	8.3	16.1	167	38-40		8	28	Peripheral		430	458	River	F		801
3,010	5.0			36.4		2	2	Irr	20	100	400	Surface & Prod	F & B	* Formerly Calvert. † Includes primary production since 6-55.	300
2,950	11.0			30.0		3	4	Irr	20	400	400	Cypress & Prod	B	* Formerly Calvert. † Includes primary production since 5-55.	3408
3,160	10.0					1	1	Line Drive	20	40	40	Prod	B	* Formerly Calvert. † Includes primary production since 4-55.	4107
2,960	8.0			35.6		2	8	Line Drive	16	160	160	Penn & Prod	F & B		4141
3,130	12.0			35-37		2	12			250	250	Penn Sd	B		4147
3,135	13.0			37.6		1	5		10	60	60	Cypress	B		4140
2,732	10.0					1	4	5-Spot	10	40		Tar Springs	B	* Sucrosic dolomite.	1913
														* No date 1961.	1911

TABLE 24 — ILLINOIS WATERFLOOD PROJECTS

Map no.	General information							Production and injection statistics							
	Field C = Consolidated	Operator	County	Project U = Unit	Date first inj.	"Formation"	Section, T-R	Water inj., M bbls		Oil prod., M bbls		Water Prod., M bbls		Av. inj. per foot per day bbls	Maximum well-head pressure psi
								Total 1961	Cumulative 12-31-61	Total 1961	Cumulative 12-31-61	Total 1961	Cumulative 12-31-62		
4109	Clay City C	F. & W.	Wayne	Miller & Lambrich U*	8-50	Ohara, Rosi., & McClosky	29-1N-8E					128†			
4146	Clay City C	F. & W.	Wayne	Mt. Erie U	10-60	Aux Vases	33,34,35-1N-8E	636	767	29.6	33*	41	41	11.3	950
4110	Clay City C	General American	Wayne	Covington U	6-55	Ste. Genevieve	25-1S-6E 19,20,28,29,30,31,32,33-1S-7E	2,289	18,471	90.7	1,149	1,695	8,237	17.2	1,103
4144	Clay City C	Gulf	Wayne	W. Geff U	11-60	Aux Vases	16,17,21-1S-7E	977	1,022	74.3	74	466	466	22.9	1,200
3419	Clay City C	B. Kidd	Richland	Wakefield-Harrell U	7-60	Cypress	26-4N-9E	313	416	145.4	158	125	130	6.1	625
4119	Clay City C	Kirby	Wayne	Kirby	1-55	Aux Vases	16,17-1N-7E	103	2,395	12.8	352*	117	306†	28.1	500
3421	Clay City C	McDowell & Murvin	Richland	Wakefield Pool U	10-60	Cypress	24-4N-9E	311	383	111.2*	116*			6.8	
302	Clay City C	Pure	Clay & Wayne	Banker School C	1-57	Cypress	15,21,22,28-2N-8E	296	1,736	67.4	485	45	146	6.7	1,060
335	Clay City C	Pure	Clay	Weiler School C	12-61	Cypress McClosky	33,34-3N-8E 3,4-2N-8E	16	16	2.1	2	2	2	2.6	920
1910	Clay City C	Pure	Jasper	E. Newton U	11-60	McClosky	27,34-7N-10E	222	224	13.6	15	234	235	25.4	0
3404	Clay City C	Pure	Richland	Old Noble	8-54	McClosky	33-4N-9E; 4,5,8,9-3N-9E	5,935	41,179	484.0	2,978	2,653	12,809	162.6	30
3405	Clay City C	Pure	Richland	S. Noble	8-57	McClosky	30-3N-9E; 25-3N-8E	690	3,038	11.8	95	169	668	189.1	0
3406	Clay City C	Pure	Richland & Wayne	S.W. Noble U	8-57	Rosiclare	11,12-2N-8E	781	3,289	21.3	144	140	535	82.3	0
3418	Clay City C	Pure	Richland	Wakefield U	6-60	Cypress	13,14,22,23,24,25,26,27-4N-9E	3,643	5,076	657.8	1,009*	1,191	1,938*	6.1	740
4112	Clay City C	Pure	Wayne	Jordan School U	10-55	Aux Vases	3-1N-7E; 27,34,35-2N-7E	1,760	10,979	146.5	1,732	1,198	4,571	9.4	700
4113	Clay City C	Pure	Wayne	N.E. Jordan School U	10-56	Aux Vases	25,26,35,36-2N-7E	1,062	5,953	111.8	994	910	2,171	8.5	640
4114	Clay City C	Pure	Wayne	Van Fossan U	1-53	McClosky	14,15,22,23,26,27-1N-8E	475	11,062	24.7	509	261	3,634	7.6	700
4131	Clay City C	Pure	Wayne	S.E. Jordan School U	5-58	Aux Vases	2,11-1N-7E	1,082	4,157	224.1	819	550	936	7.9	775
4142	Clay City C	Pure	Wayne	Elm River U	11-58	A.V. & McCl.	30,31-2N-8E	368	1,514	76.6	160	183	245	9.5	700
4143	Clay City C	Pure	Wayne	Feller Cons.	5-59	Aux Vases	5,6,7,8-1N-8E	916	2,573	175.4	492	498	900	6.8	900
4152	Clay City C	Pure	Wayne	Oregon School U	6-61	Aux Vases	20,21,28,29-1S-8E	457	457	7.9	8	19	19	12.6	400
4153	Clay City C	Pure	Wayne	S.E. Enterprise U	8-61	Aux Vases	24-1N-8E	70	70	0.4	0	0	0	13.0	820
1901	Clay City C	Robinson & Puckett	Jasper	N.E. McClosky U 1	5-53	McClosky	13,14,24-7N-10E	59	1,125	20.6	216	11	197	26.1	1,250
1902	Clay City C	Robinson & Puckett	Jasper	S.W. McClosky U 2	5-53	McClosky	23,26-7N-10E	132	2,901	26.7	516	74	784	8.8	1,500
4115	Clay City C	Robinson & Puckett	Wayne	N. Puckett U	1-56	Aux Vases	9-2S-8E	88	936	8.7	119	41	246	5.0	1,200
4116	Clay City C	Robinson & Puckett	Wayne	S. Puckett U 1	8-54	Aux Vases	16-2S-8E	430	3,980	20.7	443	203	1,589	11.4	1,200
4117	Clay City C	Shakespeare	Wayne	E. Banker School	1-57	Cypress	22-2N-8E	76	427	2.9	76	37	160	8.3	1,030
4118	Clay City C	Shakespeare	Wayne	E. Geff U	1-57	Aux Vases	12,13-1S-7E; 7,18-1S-8E	1,279	3,905	290.9	562	416	657	7.9	1,355
4136	Clay City C	Slagter	Wayne	Blessing-Chrisman U	3-59	Aux Vases	31,32-1N-8E		193*	6.1	26		7*		1,200
4108	Clay City C	Tamarack	Wayne	Pierce	2-54	Rosiclare	22-2N-8E	91*	1,013*		86†		922*	25.0	0
4151	Clay City C	H. H. Weinert Estate	Wayne	S. Boyleston U	4-61	Aux Vases	3,4,9,10-2S-7E	155	155	7.2	7				
1908	Clay City C	Zanetis	Jasper	P. Kelley 3	11-58	Rosiclare	1-5N-9E	0*	0*	9.3*	19*	9†			
1909	Clay City C	Zanetis	Jasper	C. Harvey 2	11-58	Rosiclare	12-5N-9E	42*	130*	0	2				
2011	Coil W	Gulf	Jefferson	Coil W U	1-61	Aux Vases	14,15,22,23-1S-4E	438	438	43.7*	44*	237	237	24.0	600
2012	Coil W	Gulf	Jefferson	Coil W U	1-61	McClosky	14,15,22,23-1S-4E	53	53	*	*				650
4281	Concord C	Ashland	White	Concord U	9-59	Tar Springs	28-6S-10E	186	437	69.5*	186*	64		31.8	1,200
4208	Concord C	C. E. Brehm	White	Concord N U	12-52	Aux Vases	10-6S-10E	13*	637	1.9	66			2.9	1,000
4299	Concord C	Crescent	White	Concord	8-60	Tar Springs	21,28-6S-10E	334	352	143.7	144	144	144	12.2	950
4331	Concord C	Crescent	White	Concord	1-61	Aux Vases	28-6S-10E	67	67	0.4	0	18	18	9.2	300
4332	Concord C	Crescent	White	Tuley	10-61	Cypress	21,22,28-6S-10E	11	11	0.0	0	2	2	2.8	200
4309	Concord C	Humble	White	Concord Coop	12-60	Tar Springs Aux Vases	28-6S-10E	209	213	63.7	64	7	7	4.5	500
4206	Concord C	Phillips	White	Kerwin	7-53	Rosi. & McCl.	21-6S-10E	110	1,025	2.6	35	39	187	10.0	0

Reservoir statistics (average values)						Development as of 12-31-61					Injection water		Remarks	Map no.	
Depth feet	Net pay thickness feet	Porosity percent	Permeability millidarcys	Oil gravity API	Oil viscosity centipoises	No. of wells		Injection pattern Mod = Modified Irr = Irregular	Acres per input well	Productive acres		Source Sd = Sand Gr = Gravel Prod = Produced Sh = Shallow			Type F = Fresh B = Brine
						Inj.	Prod.			Under inj.	Total				
3,050	5.0					4	4	Irr	10	180	180	Cypress & Prod	B	* No data 1961. † As of 1-59.	4109
3,000	11.0	13.0	16	38.5	3.6	14	30	Peripheral & Line Drive	20	900	900	Gr Bed	F	* Includes primary production since 10-60.	4146
3,200	14.0	5-22	80	39.0		26	18	5-Spot	40	1,967	2,100	Penn & Prod	B		4110
3,150	13.0	19.0	85			9	10	5-Spot	10	150	170	Penn Sd	B		4144
2,540	28.0	18.0	140			5	5	5-Spot	20	100	70	Purchased	B		3419
2,900	5.0	19.0	7	38.0		2	8	Perimeter		160	440	Penn Sd & Prod	B	* Since 1-56. † Since 1-60.	4119
2,535	21.0			35.0		6	13	Irr	40	320	320	Purchased	B	* Includes primary production since 10-60.	3421
2,639	15.0	18.0	65			8	11	Line Drive	50 & 80	380	560	Penn Sd & Prod	B		302
2,596	17.0	15.3	24			12	13	Irr & 5-Spot	40	460	560	Penn & Prod	B		335
2,957															
2,670	8.0					3	7	Irr	57	170	170	Cypress & Prod	B		1910
2,930	10.0			36.0		10	45	Line Drive	100	1,260	2,700	Cypress & Prod	B		3404
2,975	5.0	13.0*	300*			2	5	Line Drive	200	400	1,290	Tar Springs & Prod	B	* Estimated.	3405
2,984	6.5					4	12	Line Drive	85	240	240	Cypress & Prod	B		3406
2,545	32.0	17.2	120			51	51	5-Spot	10	1,034	1,070	Penn	B	* Includes pilot flood production since 4-50.	3418
2,950	14.6	19.0	73	35.0		35	38	5-Spot	17.6	687	1,400	Penn & Prod	B		4112
2,950	15.5	19.0	106	37.0		22	19	5-Spot	20	380	1,094	Penn & Prod	B	Previously subjected to gas injection.	4113
3,070	10.0	13.0	100-300	36.0		17	14	Line Drive	113	1,870	2,320	Cypress & Prod	B		4114
2,930	17.0	19.0	106	40.0		22	20	5-Spot	28	560	1,273	Penn & Prod	B	Gas injection 7-55 to 1-58; no effect.	4131
2,950	15.0	18.0	87	38.9		7	14	Irr	10	203	320	Penn & Prod	B		4142
2,950	16.0	16.0	77	38.5		23	28	5-Spot & Line Dr	10 & 20	1,060	2,010	Penn, McClosky & Prod	B		4143
3,186	14.0	19.0	35			14	13	5-Spot	10	280	370	Penn	B		4152
2,992	12.0	18.0*				3	1	Irr		70	100	Penn	B	* Estimated.	4153
2,530	6.2	14.0		39.8	2.9 at 100°F	1	4	Mod Line	20	235	235	Well & Prod	F & B		1901
2,580	8.2	14.0		39.8	2.9 at 92°F	5	9	Mod Line	20	415	415	Well & Prod	F & B		1902
3,150	8.0	19.0	115	39.0	3.7 at 100°F	6	4	Mod Peripheral	20	172	172	Sewage & Prod	F & B		4115
3,200	14.8	20.0	80	39.0	3.7 at 100°F	7	7	Mod Peripheral	20	243	243	Sewage & Prod	F & B		4116
2,639	12.5	16.5	43	34.4	6.8 at 60°F	2	2	5-Spot	10	20	40	Penn Sd*	B	* Purchased from Pure Oil Co.	4117
3,065	15.9	19.0	85	38.7	3.4 at 90°F	28	33	5-Spot	20	588	588	Penn Sd & Prod	F & B		4118
3,053	17.0					2	3		10	50	50	Cypress	B	* As of 12-60.	4136
3,016	10.0					1†	1				160	Prod	B	* Estimated. † As of 12-60. ‡ Salt water disposal well.	4108
						4		Peripheral		280	280	Well	B		4151
2,941	5.0					0	2		40	40	30	Cypress	B	* Waterflood production due to injection on adjacent leases. † Since 1-61.	1908
2,954	6.0					1	1		40	40	20	Cypress & Prod	B	* Estimated. Dump flood.	1909
2,700	10.0	19.0	160			5	7	Peripheral	10	95	120	Penn Sd	B	* Includes primary production since 1-61. Includes 2012.	2011
						1	2			30		Penn Sd	B	* Included with 2011.	2012
2,279	8.0				4.4	2	3	Peripheral	10	60	60	Sd & Gr	F	* Includes primary production since 9-59.	4281
2,950	15.0	20.0	218	35.1	5.0 at 103°F	2	2	Irr	10	160	160	Gr	F & B	* Injection discontinued 6-61.	4208
2,260	15.0	16.0	175	37.0		5	8	5-Spot	10	140	140	Well	F		4299
2,890	21.0	20.0	75			1	3	Irr	10	50	50	Well	F		4331
2,610	15.0	16.0	135			3	3	Irr	10	92	110	Well	F		4332
2,260	21.0	16.0	175	37.0		3	3	5-Spot	20	47	80	Penn Sd	B		4309
2,890	21.0	20.9	75												
2,960	30.0	15.0*	300*	37.0		1	6		10	40	100	Sh Sd & Prod	B	* Estimated.	4206

Map no.	General information							Production and injection statistics							
	Field C = Consolidated	Operator	County	Project U = Unit	Date first inj.	"Formation"	Section, T-R	Water inj., M bbls		Oil prod., M bbls		Water Prod., M bbls		Av. inj. per day per foot bbls	Maximum well-head pressure psi
								Total 1961	Cumulative 12-31-61	Total 1961	Cumulative 12-31-61	Total 1961	Cumulative 12-31-62		
4207	Concord C	Phillips	White	Tuley	7-51	McClosky	21-6S-10E	16	1,443	6.1	114	16	1,167	1.5	0
4325	Concord C	S & M Oil Co.	White	N. Concord U	11-61	Hardinsburg	9,10-6S-10E	112	112	0	0	4	4	21.9	0
508	Cooks Mills C	Ashland	Coles & Douglas	Cooks Mills U	11-61	Spar Mtn.	13,24,25-14N-7E 18,19,20,30-14N-8E	17	17	3.2*	3*			4.6	0
505	Cooks Mills C	J. A. Markey	Coles	Cooks Mills U	1-61	Rosiclare	16-13N-7E	820	820	47.8	48	25	25	19.3	800
4000	Cordes	Shell	Washington	Gordes Coop*	8-50	Benoist	14,15,22,23-3S-3W	1,099	13,161	141.3	3,756	1,576	12,214	6.0	540
1309	Dale C	C. E. Brehm	Franklin & Hamilton	Westbrook U	8-59	Aux Vases	1-7S-4E; 6-7S-5E	123	296	20.6	27			8.4	50
1310	Dale C	C. E. Brehm	Franklin	Lario Trustee "A" U	2-60	Aux Vases	36-6S-4E	35*	109	5.0†	14†			5.5	
1513	Dale C	C. E. Brehm	Hamilton	Cantrell U	12-58	Aux Vases	4,5-7S-5E	500	1,281*	15.3	55			8.3	500
1519	Dale C	J. A. Dull	Hamilton			McClosky	14-6S-5E	*	*	2.6	3	29	29		
1520	Dale C	Farrar	Hamilton	Tedford	7-61	Aux Vases	26-5S-6E	29	29	0.1*	0*			9.6	0
1525	Dale C	Farrar	Hamilton	Tedford	7-61	Bethel	26-5S-6E	10	10	*	*			4.5	0
1510	Dale C	Gulf	Hamilton	W. Rural Hill U	6-59	Aux Vases	11-6S-5E	2,867	6,575	586.1*	1,205*	1,674*	2,128*	12.9	1,000
1511	Dale C	Gulf	Hamilton	W. Rural Hill U	6-59	Ohara	11-6S-5E	102	540	*	*	*	*	11.6	825
1528	Dale C	Humble	Hamilton	Dale-Hoodville Coop	7-61	Aux Vases	27-5S-6E	193	193	*	*	*	*	9.0	50
1529	Dale C	Humble	Hamilton	Dale-Hoodville Coop	7-61	Bethel	27-5S-6E	125	125	2.4*	2*	19*	19*	6.9	100
1523	Dale C	E. H. Kaufman	Hamilton	N. Rural Hill U	1-61	Aux Vases	11,12-6S-5E	272	272	6.5*	6*	73	73	10.0	500
1524	Dale C	E. H. Kaufman	Hamilton	S.E. Rural Hill	9-61	Aux Vases	18,19-6S-6E	170	170	6.6*	7*			23.2	50
1512	Dale C	Mobil	Hamilton	Rural Hill	5-59	Aux Vases	12,23,24-6S-5E	510	1,198	49.0*	68*	126	163		
1502	Dale C	Phillips	Hamilton	Cantrell U	8-55	Aux Vases	5,6,7-7S-5E	201	1,677	5.6	158	154	1,021	12.2	980
1503	Dale C	Phillips	Hamilton & Saline	W. End U	1-56	Aux Vases	17,19,20-7S-5E	249	1,591	10.5	153	136	660	15.1	880
1514	Dale C	Shell	Hamilton	Rural Hill U	6-59	Aux Vases Ohara McClosky	7,11,12,13,14,18,23,24-6S-5E	8,167	19,442	1,605.6	2,282*†	3,673	4,792†	6.4	778
1526	Dale C	Sinclair	Hamilton	J. H. Stelle	8-61	Aux Vases	27-5S-6E	52	52	0.1*	0*	11*	11*	15.4	0
1527	Dale C	Sinclair	Hamilton	J. H. Stelle	8-61	Benoist	27-5S-6E	23	23	*	*	*	*	4.0	0
1507	Dale C	Stewart	Hamilton	B. Jones	8-58	Aux Vases	8-6S-6E	33*	171	0.8	10†			8.2	1,375
1816	Dale C	Stewart	Hamilton	Craddock - Arms	9-60	Aux Vases	19-6S-6E	170	232	2.1	2	14	14	7.8	574
1531	Dale C	Stewart	Hamilton	Williams Heirs-Knight Coop	7-61	Aux Vases	9,10-6S-6E	112	112	0	0	0	0	8.8	75
1504	Dale C	Texaco	Hamilton	W. Dale U	7-51	Aux Vases	11-6S-6E	453	4,387	27.7	490	269	2,168	29.6	1,080
1508	Dale C	Texaco	Hamilton	C. W. Hood	6-58	Aux Vases	3-6S-6E	85*	386	16.5†	53†	181†	513†	13.5	#
1509	Dale C	Texaco	Hamilton	C. W. Hood	6-58	Benoist	3-6S-6E	79*	368	†	†	†	†	12.5	547
2002	Divide C	Gulf	Jefferson	W. D. Holloway	5-55	McClosky	21-1S-4E	334	1,537	10.4	113	370	1,123*	132.4	0
4003	Dubois C	H. Mabry	Washington	Peek	11-59	Cypress	20-3S-1W	18	38	3.0	4			2.0	350
103	Edinburg W	Skiles	Christian	Edinburg W U	11-61	Silurian	8,16,17-14N-3W	37	37	0	0	6	6	12.5	190
3603	Eldorado C	Frank King*	Saline	Endicott U	4-59	Waltersburg	2-8S-7E	53	141	1.9	8†	10	13	20.7	1,150
3607	Eldorado E	G. L. Reasor	Saline	Porter*	1-61	Aux Vases	23-8S-7E	102	102	6.5	6	9	9	13.6	450
1007	Ellery E	Herndon	Edwards	Ellery E U	11-57	Aux Vases	27,34-2S-10E	185	905	117.6*	320*	200*†	393*†		
1019	Ellery E	Herndon	Edwards	Ellery E U	11-57	Ohara	27,34-2S-10E	238	1,210	*	*	*	*		
4209	Enfield	Ryan	White	S. Enfield U 2	10-56	McClosky	28,29,32-5S-8E	121	653*	10.3	66*†	121	411	33.0	1,304
4292	Enfield	Ryan	White	S. Enfield U 3	8-56	Ohara	28,29,32-5S-8E	47	210	10.5	84*	47	127	26.0	1,110
413	Fairman	Louden Pipeline	Clinton	Ducomb-Krietler	3-59	Benoist	13,24-3N-1W	228	763	8.0	23	209	763	-	500
331	Flora S	Cullum & Lawhead*	Clay	Given-McGrew U†	10-59	McClosky	4-2N-6E		70†		4†		7†		
3953	Friendsville N	J. W. Sanders	Wabash	Friendsville N U*	8-57	Biehl	1-1N-13W				2†		0†		
4123	Goldengate C	Cities Service	Wayne	Goldengate U	8-56	Rosi. & Ohara	32,33-2S-9E	174	890	10.7	71	80	181	5.3	1,000
4145	Goldengate C	N. V. Duncan	Wayne	Scottsville C	1-59	Bethel	23,26-2S-9E	156	369	104.0	159	38	38	8.9	900

Reservoir statistics (average values)						Development as of 12-31-61						Injection water		Remarks	Map no.
Depth feet	Net pay thickness feet	Porosity percent	Permeability millidarcys	Oil gravity API	Oil viscosity centipoises	No. of wells		Injection pattern Mod = Modified Irr = Irregular	Acres per input well	Productive acres		Source Sd = Sand Gr = Gravel Prod = Produced Sh = Shallow	Type F = Fresh B = Brine		
						Inj.	Prod.			Under inj.	Total				
2,960	30.0	15.0*	200*	37.0		1	6	Irr	20	65	120	Sh Sd & Prod	B	* Estimated.	4207
2,500	12.0	17.5	300	39.0	3.0*	7	20	Mod Split Line	10	313	313	Sh Gr	F	* At reservoir temperature.	4325
1,780	10.0	13.5	161	39.0	5.5	6	39	Peripheral	10	575	575	Penn Sd	B	* Includes primary since 11-61.	508
1,800	15.0	17.0	250	36.0	4.0 at 60°F	8	24	Flank		320	320	River & Prod	F & B		505
1,230	14.0	20.0	250	37.2		36	56	5-Spot	20	640	640	Prod	B	* Shell - Mobil - McBride - Horton.	4000
3,200	20.0	23.0				2	5	Mod Line	40	120	120	Cypress	B		1309
3,100	20.0					2	4		10	120	120	Cypress	B	* Injection shut down 7-61 to 12-61. † Includes primary production since 2-60.	1310
3,100	15.0	22.0				11	12	Line Drive	10	440	440	Cypress & Prod	B	* Adjusted by operator. * Water is being injected by Gulf in offset wells. See 1514.	1513
3,051	20.0					1	2*							* Includes 1525.	1520
2,957	15.0					1	*							* Included with 1520.	1525
3,100	21.0	19.1	96	37.0		29	21	5-Spot	10	140	140	Cypress	B	* Includes 1511.	1510
3,200	12.0					2	1	5-Spot	10	20	140	Cypress	B	* Included with 1510.	1511
3,050	13.0	20.0	116	40.0	6.0 at 60°F†	6	6	5-Spot	20	95	565	Palestine & Prod	B	* Included with 1529. † Estimated.	1528
2,950	11.0	14.8	117	38.0	5.5 at 60°F†	6	3	5-Spot	20	60	332	Palestine & Prod	B	* Includes 1528. † Estimated.	1529
3,150	15.0					5	5	Peripheral	20	140	160	Cypress & Prod	B	* Includes primary production since 1-61.	1523
3,190	20.0					3	9	Irr	20	120	140	Cypress & Prod	B	* Includes primary production since 9-61.	1524
3,108				38.0	4.3 at 100°F	8	14	5-Spot	10	211	269	Cypress	B	* Includes primary production since 5-59.	1512
3,200	15.0	18.0*	75*	37-39		3	5	5-Spot	10	50	110	Penn & Prod	B	* Estimated.	1502
3,150	15.0	18.0*	75*	36-38		3	6	5-Spot	10	65	90	Penn & Prod	B	* Estimated.	1503
3,120	20.9			39.4		81	75	5-Spot	20	1,954	1,954	Cypress & Prod	B	* Includes primary production since 6-59. † Operator adjusted.	1514
3,195	10.1														
	12.4														
3,034	11.0			37.0		2	3	5-Spot	20	30	60	Prod	B	* Includes 1527.	1526
2,938	19.0			37.0		2	3	5-Spot	20	30	60	Prod	B	* Included with 1526.	1527
3,088	22.0					1	2			30	30	Cypress	B	* Injection temporarily discontinued 7-61. † Excluding 1960.	1507
3,120	20.0					3	4		10	70	70	Cypress	B		1516
3,065	20.0					4	6		10	100		Prod	B		1531
3,050	14.0	17.0	125	38.0		3	8	Perimeter	10	295	295	Sh Sd & Prod	B	Previously subjected to gas injection.	1504
3,050	26.0	19.0	109	37.0		1	7		10	100		Hardinsburg	B	* Injection discontinued 9-61. † Includes 1509. ‡ Vacuum.	1508
2,950	26.0	17.5	126	37.0		1	7		10	100		Hardinsburg	B	* Injection discontinued 9-61. † Included with 1508.	1509
2,805	6.9	18.0		36.6	3.4 at 97°F	1	1	Edge	20	20	150	Prod	B	* Operator adjusted.	2002
1,238	12.0			37.0		2	1		10	40	40	Tar Springs	B		4003
1,700	15.0					5	20	Mod Line	10	101	680	Sh Sd	F		103
2,090	7.0	13.0	100			1	3	Line Drive	10	140	140	Penn Sd	B	* Formerly H. V. Spires. † Includes primary production since 4-59.	3603
2,900	7.0			37.4		3	5	5-Spot	20	160	160	Palestine	B	* Pilot flood.	3607
3,170	10.0	17.7	26			10	13			300	300	Purchased	F	* Includes 1019. † Since 1-59.	1007
3,240	6.0					6	8			275	275	Purchased	F	* Included with 1007.	1019
2,945	4.6	10.5	22	37.0	2.5 at 103°F	2	2	Irr		155	155	Well	F	* Adjusted figure. † Includes primary production since 10-56.	4209
2,874†	5.0			36.8	3.0 at 102°F	1	1			80	80	Prod	B	* Includes primary production since 8-56. † Subsea.	4292
1,450		21.0	357			3	8	Irr	20	60	110	Prod	B		413
2,992	12.0					1	1		40	60	60	Penn & Prod	F & B	* Formerly General American. † No data 1961. ‡ As of 12-60.	331
1,631	10.0			36.0	34.2 at 63°F	1	2		10	40	80	Water Sd	F	* No data 1961. † As of 1959.	3953
3,260	15.0	15.0	10-15	36.0		6	7	Irr		115	360	Gr	F		4123
3,100	8.0					6	7	5-Spot	20	130	130	Sh Sd	F		4145

Map no.	General information							Production and injection statistics							
	Field C = Consolidated	Operator	County	Project U = Unit	Date first inj.	"Formation"	Section, T-R	Water inj., M bbls		Oil prod., M bbls		Water Prod., M bbls		Av. inj. per day per foot bbls	Maximum well-head pressure psi
								Total 1961	Cumulative 12-31-61	Total 1961	Cumulative 12-31-61	Total 1961	Cumulative 12-31-62		
4139	Goldengate C	T. G. Jenkins	Wayne	Pond Creek U	6-60	Aux Vases	29,30,31,32-2S-9E	579	927*	52.8	64*	89	118*	14.8	1,400
4138	Goldengate C	Skiles	Wayne	O'Daniel U	1-59	Benoist	26-2S-9E	63	147	15.9	21	2	2	8.6	1,300
4148	Goldengate C	Tamarack	Wayne	W. Ellery U	9-61	Aux Vases	15,22,23,27-2S-9E	19	19	*	*	*	*	14.7	1,400
4149	Goldengate C	Tamarack	Wayne	W. Ellery U	9-61	Ohara	15,22,23,27-2S-9E	47	47	2.6*	3*	1*	1*	18.2	1,100
4150	Goldengate C	Tamarack	Wayne	W. Ellery U	9-61	Rosiclare	15,22,23,27-2S-9E	28	28	*	*	*	*	17.6	1,300
3600	Harco	Phillips	Saline	Noble "A"	6-57	Aux Vases	16-8S-5E	26	111	3.7	10	1*	2*	5.9	0
3601	Harco E	Sun	Saline	Harco W. F. P. U	7-59	Cypress	24,25,26-8S-5E	15*	84	0	3	0	37	8.0	1,450
3602	Harco E	Sun	Saline	Harco W. F. P. U	7-59	Aux Vases	24,25,26-8S-5E	121	221	12.3	25	52	74	20.7	900
3606	Harrisburg	W. C. McBride	Saline	Harrisburg N	1958	Waltersburg	34-8S-6E	174	253*	1.0	4*	20	39*	15.9	500
1419	Herald C	Ashland	Gallatin	S.W. New Haven U	12-61	Tar Springs	29,30-7S-10E	4	4	0	0	0	0	4.8	0
4210	Herald C	C. E. Brehm	White	Herald W U	1-55	Waltersburg	28,33-6S-9E	109	563	19.3	193			2.5	1,200
4304	Herald C	C. E. Brehm	White	New Haven U	2-60	Aux Vases	18-7S-10E	35	88	2.4*	4*			3.2	1,000
1405	Herald C	Continental*	Gallatin	Cottonwood N U	12-57	Cypress	21,28-7S-9E	623	2,647	200.8	542†	211	494	6.8	1,600
4340	Herald C	Indiana Farm Bureau	White & Gallatin	New Haven U	2-60	Aux Vases	17,18-7S-10E	226	406	11.4	21			5.9	1,370
4211	Herald C	Mabee-Allen	White	Ackerman U	2-56	Aux Vases	4-7S-10E	27	163		34**			3.2	
4212	Herald C	Q. B. Mitchell	White	Bayley U	9-57	Cypress	2-7S-9E	117	460	6.0	19	9	24	7.1	2,312
1105	Hill E	Wichita River*	Effingham	Hill E U	12-59	Cypress	11,12,13,14-6N-6E	806	1,756†	37.3	49†	215	616†	56.6	600
332	Hord S C	Shirk & Webster	Clay	S. Hord U	2-59	Rosiclare	26,27,34,35-5N-6E	630	2,290	131.9	373	419	849	66.8	1,350
2008	Ina	Kewanee	Jefferson	Jeff-Karber-Threl "B"	12-60	Renault McClosky	23-4S-2E	348	370*	42.6†	47†	179	194	26.5	795
320	Ingraham	Humble	Clay	Ingraham U	12-56	Rosiclare	4,9-4N-8E	9*	2,568	0.2*	261	6*	1,549	16.0	
1422	Inman E C	Crawford	Gallatin	Black	1959	Waltersburg	2-8S-10E	80	195	16.0	74			20.0	425
1423	Inman E C	Crawford	Gallatin	E. Inman	3-54	Cypress	2,3,10-8S-10E; 34-7S-10E	60	691	17.7	206	84	508	2.9	1,240
1424	Inman E C	Crawford	Gallatin	E. Inman	3-54	Tar Springs	2,3,10-8S-10E; 34-7S-10E	566	5,264	11.0	565	469	3,277	7.4	1,240
1406	Inman E C	Humble	Gallatin	Big Barn	4-54	Cypress	11-8S-10E	11	132	2.8	125	4	16	2.6	1,240
1407	Inman E C	Humble	Gallatin	Kerwin-Crawford	6-55	Clore, Pal., Walt., T.S., Cyp., & Hard.	11,14-8S-10E	885	7,241	136.9	1,681	453	1,674	5.6	1,100
1408	Inman E C	Humble	Gallatin	West U	7-56	Walt., Hard., & Cypress	9,10,15,16,21,22-8S-10E	1,055	6,556	240.3	2,227	508	1,437	9.6	1,000
1409	Inman E C	Natural Resources	Gallatin	Big Barn	3-54	Tar Springs	34-7S-10E; 2,3,4,10,11-8S-10E	501*	5,198*†	23.3*	894*	413*	2,059*	10.3	1,250
1410	Inman E C	Natural Resources	Gallatin	Big Barn	3-54	Cypress	34-7S-10E; 2,3,4,10,11-8S-10E	300*	2,987*	41.5*	1,093*	317*	1,280*	4.4	1,250
1420	Inman E C	J. Simpkins	Gallatin	Haven	11-60	Aux Vases	28,32-7S-10E	110	132	1.5*	2*			8.4	1,100
1426	Inman E C	Skelly	Gallatin	Egyptian Tie & Timber	1-59	Waltersburg Hardinsburg Cypress	21-8S-10E	56	203	1.1	8	10	42	6.0	375 1,200 1,200
1425	Inman E C	Sohio	Gallatin		3-54	Tar Springs	34-7S-10E; 3-8S-10E	654	4,737	34.0	389	528	3,578	8.1	1,200
1411	Inman E C	Sun	Gallatin	Inman E*	3-54	Tar Springs	3-8S-10E	198	1,782	3.9	194	170	790	9.4	1,240
1400	Inman W C	T. A. Ferral	Gallatin	*	7-58	Aux Vases	19-8S-10E								
1401	Inman W C	V. R. Gallagher	Gallatin	Bradley U	10-57	Biehl	17-8S-9E	68	312	15.3	130	29	78	7.8	1,050
1402	Inman W C	Gulf	Gallatin	W. Inman U	5-55	Cypress	15,16-8S-9E	70	1,651	26.9*	398*	110*	367*	2.0	1,500
1403	Inman W C	Gulf	Gallatin	W. Inman U	3-57	Tar Springs	15,16-8S-9E	208	814	*	*	*	*	5.8	1,500
1427	Inman W C	Skelly	Gallatin	Schmitt "A"	6-60	Buchanan	15-8S-9E	37	58	3.8	4	12	21	12.5	
1415	Inman W C	Skiles	Gallatin	Inman W	4-56	Tar Springs	13,24-8S-9E	168*	257*	8.8	20	56	117†	11.5	1,300
321	Iola C	Humble	Clay	Iola	6-58	Cyp., A.V., & Bethel	15-5N-5E	58	199	13.3	77	51	124	7.6	581
322	Iola C	Texaco	Clay	Iola Coop	6-58	Benoist	14,15-5N-5E	199	755	5.4	22	*	*	6.4	680
323	Iola C	Texaco	Clay	Iola Coop	6-58	Aux Vases	14,15-5N-5E	287	2,089	19.2	116	538*	2,000*	5.9	725

Reservoir statistics (average values)						Development as of 12-31-61						Injection water		Remarks	Map no.
Depth feet	Net pay thickness feet	Porosity percent	Permeability millidarcys	Oil gravity API	Oil viscosity centipoises	No. of wells		Injection pattern Mod = Modified Irr = Irregular	Acres per input well	Productive acres		Source Sd = Sand Gr = Gravel Prod = Produced Sh = Shallow	Type F = Fresh B = Brine		
						Inj.	Prod.			Under inj.	Total				
3,200	11.9	19.0	55	39.0	3.1 at 80°F	9	14	Split Line	40	380	420	Sh Gr & Prod	F & B	* Operator adjusted.	4139
3,097	10.0					2	2	Mod 5-Spot	10	40	40	Sh Sd & Prod	F & B		4138
3,230	12.0				2.3	1	4	Peripheral	40	80	100	Sh Gr	F	* Included with 4149.	4148
3,300	6.0					4	11	Peripheral	40	400	400	Sh Gr	F	* Includes 4148 & 4150.	4149
3,330	5.0					3	4	Peripheral	40	60	80	Sh Gr	F	* Included with 4149.	4150
2,890	12.0	22.0*	100*	38-39		1	2		10	10	30	Prod	B	* Estimated.	3600
2,550	9.0					1	2		10	30	30	Penn Sd	B	* Injection discontinued 8-61.	3601
2,850	8.0					2	9		10	40	120	Penn Sd & Prod	B		3602
2,020	10.0	18.0	140			3	5	Mod 5-Spot	20	60	70	Penn Sd	B	* Since 6-60.	3606
2,150	14.0	16.5	400			2	3	Line Drive	20	92		Gr	F		1419
1,866*	20.0	19.5	200	38.0	3.5 at 60°F	3	18	Line Drive	10	365	320	Penn Sd	B	* Subsea.	4210
2,900	10.0	10.0	100			3	3	5-Spot	20	60	60	River	F	* Includes primary production since 2-60.	4304
2,650	12.0	15.0	17			21	20	5-Spot	20	400	525	Penn Sd & Prod	F & B	* Formerly Calvert. † Includes primary production since 12-57.	1405
2,860	13.0	14.0	10			8	7	5-Spot	20	150	150	River	F		4340
2,890	23.0				3.4	1	2			160	40	Cypress	B	* As of 12-60. † Includes primary production since 1-57.	4211
2,715	15.0	14.9	58	39.0		3	2		10	20	40	Palestine	B		4212
2,460	13.0	18.0	100	36.0	6.8 at 90°F	3	15	Flank	50	151	151	Sh Sd & Prod	F & B	* Formerly B & G. † Includes project previously recorded as 1101.	1105
2,790	8.6	15.0	862	36.2	3.2 at 95°F	3	12	Flank	40	333	333	River & Prod	F & B		332
2,640	10.0	22.0	96			2	7				180	Penn & Prod	B	* Adjusted by operator. † Includes primary production since 12-60.	2008
2,770	8.0	13.0	25												
3,000	5.1	14.2	2,450	38.0	7.2	1	1	5-Spot	40	297	552	Prod	B	* Abandoned 4-61.	320
1,975	11.0					1	3		10	80					1422
2,417	19.0			38.0		3	5	5-Spot	10	160	160	Gr Bed	F		1423
2,098	19.0			38.0		11	10	5-Spot	10	160	160	Gr Bed	F		1424
2,400	5.9	16.5	58	36.4	4.2 at 92°F	2	1	5-Spot	20	15	30	River	F		1406
1,670	5-18	16-20	75-959	32-40	3.6-9.3 at 60°F	38	36	5-Spot	20	407	435	Gr Bed	F		1407
2,000	4-11	17-20	5-109	32-40	3.6-9.3 at 60°F	39	39	5-Spot	20	641	884	Gr Bed	F		1408
2,100	15.0	17.5	137	37.7	3.6 at 63°F	34		Mod 5-Spot	20	750	796	Gr Bed	F	* Includes MBK Unit. † Previously included other projects.	1409
2,400	9.6	16.8	50	38.0	3.6 at 63°F	24	50	Mod 5-Spot	20	664	664	Gr Bed	F	* Includes MBK Unit.	1410
2,770	9.0	12.4	8	39.0	3.5 at 97°F	4	4	Mod 5-Spot	20	80	230	Sh Gr	F	* Includes primary production since 11-60.	1420
1,986	13.0			36.0		1	4		10	50	80	Purchased & Prod	F & B		1426
2,206	9.0														
	4.0														
2,120	20.0					11	10	5-Spot	10	210	210	Gr Bed	F		1425
2,100	29.0	17.9	133	35.5		2	2	5-Spot	20	40	40	Sh Gr	F	* Coop with Calstar. * No data 1956-61.	1411 1400
1,726	8.0	15.0	72	36.9	4.6 at 80°F	3	3	Peripheral	10	180	180	Sh Sd	B		1401
2,500	16.5	13.5	40	38.6	3.9 at 100°F	7	6	5-Spot	20	110	170	Penn Sd	B	* Includes 1403.	1402
2,180	11.0	13.0		36.1		9	5	5-Spot	10	90	100	Penn Sd	B	* Included with 1402.	1403
1,666	8.0			36.0		1	4		10	60	60	Purchased & Prod	F & B		1427
2,122	8.0					5	4	Line	20	69	90	Waltersburg & Prod	B	* Since 4-61. † Since 1-58.	1415
2,150	21.0	15.7	42-100	36.0		1	2	5-Spot	20	25	30	Penn	B		321
2,290	9.5	15.8	48	35-37		9	5	5-Spot	10	190	310	Sh Sd & Prod	B	* Included with 323.	322
2,350	13.3	15.7	80	35-37		10	10	5-Spot	10	240	310	Sh Sd & Prod	B	* Includes 322.	323

Map no.	General information							Production and injection statistics							
	Field C = Consolidated	Operator	County	Project U = Unit	Date first inj.	"Formation"	Section, T-R	Water inj., M bbls		Oil prod., M bbls		Water Prod., M bbls		Av. inj. per day per foot bbls	Maximum well-head pressure psi
								Total 1961	Cumulative 12-31-61	Total 1961	Cumulative 12-31-61	Total 1961	Cumulative 12-31-62		
303	Iola C	Tidewater	Clay	Iola Coop	10-57	Bethel Aux Vases	14,15-5N-5E	956*	3,556*	124.0*	802*	743*	2,046*	5.4	800
304	Iola C	Tidewater	Clay	Reed & Heirs	10-57	Beth. & A.V.	14,15-5N-5E	*	*	*	*	*	*	*	*
325	Iola C	Tidewater	Clay	L. Moss "A"	7-58	Beth. & A.V.	14-5N-5E	*	*	*	*	*	*	*	*
326	Iola C	Tidewater	Clay	M. J. Reed	6-58	Beth. & A.V.	14-5N-5E	*	*	*	*	*	*	*	*
4001	Irvington	L. Kapp	Washington	Molting Field*		Cypress	9-1S-1W		134†		12†		96†		
4002	Irvington	M. Mazzarino	Washington	Kasten U	11-57	Cypress	9-1S-1W	36	106	14.6	34	48	89	5.0	500
4004	Irvington	Mobil	Washington	C. Koelling	2-59	Benoist	15-1S-1W	81	157	7.0*	22*	34	98		
2613	Iuka	Texaco	Marion	Iuka	8-60	McClosky	10,15-2N-4E	*	*	5.7	6	30	34		
203	Johnson N	W. H. Bass	Clark	N. Johnson*	1-53	Casey	2,11-9N-14W				34†				
204	Johnson N	F. A. Bridge	Clark	Block "A"*	4-49	Penn	2-9N-14W				246†				
205	Johnson N	F. A. Bridge	Clark	Block "B"*	5-51	Casey	35,36-10N-14W				59†				
226	Johnson N	K. E. Bush	Clark	E. A. Shawver	6-61	Carper	23,24-10N-14W	10	10	6.1*	6*	13	13	1.7	150
206	Johnson N	O. A. Oldfield	Clark	V. Jones*	9-51	Casey	1,3-9N-14W								
207	Johnson N	Pure	Clark	N. Johnson	11-56	Claypool Casey U. Partlow	10,11,15-9N-14W	1,132	6,127	120.8	624	1,101	3,837	1.5	175
228	Johnson S	Dillman & Tyhurst	Clark			Penn	35-9N-14W	*	*	2.2	2				
209	Johnson S	Forest	Clark	S. Johnson (12)	3-49	Partlow	27,34,35-9N-14W	3,739	41,924	73.2	1,213			2.5	340
210	Johnson S	Pure	Clark	Johnson Ext. 1	1-54	Partlow	23,26,27-9N-14W	1,006	11,067	26.5	603	1,025	8,696	1.2	245
211	Johnson S	Pure	Clark	Johnson Ext. 2	11-55	Claypool Casey Partlow	22,23,26-9N-14W	614	5,999	25.8	330	654	2,884	0.4	245
212	Johnson S	Pure	Clark	Pure-Kewanee	1-54	Partlow	22,27-9N-14W	358	3,520	6.7	152	354	2,718	1.5	245
213	Johnson S	Pure	Clark	Weaver-Bennett	1-53	Partlow	27-9N-14W	557	8,836	11.5	490	627	7,563	1.2	245
4134	Johnsonville C	Pure	Wayne	Crisp U	2-58	Aux Vases	7,8,17,18-1S-6E	909	3,828	146.2*	939*	507	729	14.6	1,240
4121	Johnsonville C	Texaco	Wayne	Johnsonville U	10-56	Aux Vases	3,4-1S-6E; 21,26,27,28,33, 34,35-1N-6E	1,675	7,285	357.4	1,118	989	3,092	19.7	600
4122	Johnsonville C	Texaco	Wayne	Johnsonville U	11-54	McClosky	21,26,27,28,33,34,35-1N-6E	4,450*	27,263*	458.9*	2,589*	1,989*	10,944*	40.6	500
4135	Johnsonville C	Texaco	Wayne	Johnsonville U	2-58	Ohara	28-1N-6E	*	*	*	*	*	*		
1412	Junction	M. Youngblood	Gallatin	Junction U	5-51	Waltersburg	16-9S-9E	93	1,585	11.6	271*		654†	1.5	1,200
4125	Keenville	N. A. Baldrige*	Wayne	Keenville U	11-56	McClosky	27,28,33,34-1S-5E	360	1,647	28.0	248†	233	1,120	36.5	400
4126	Keenville	W. Duncan	Wayne	Keenville U	4-54	Aux Vases	28,29-1S-5E		1,971*	3.3	343†	29	660		
305	Kenner	Texaco	Clay	Kenner U	11-57	Benoist	25,36-3N-5E; 30,31-3N-6E	557	3,580	14.5	336	270	1,567	4.7	1,390
330	Kenner	Texaco	Clay	Kenner U	6-59	Aux Vases	30,31-3N-6E; 25,36-3N-5E	649	1,243	23.4	50	238	403	10.6	1,340
324	Kenner N	Indiana Farm Bureau	Clay	Theobald	10-58	Benoist	17-3N-6E	1	14	0.7	3	1*	46*		0
306	Kenner W	Phillips	Clay	W. Kenner U	2-52	Cypress Benoist	23-3N-5E	1,363	12,958	28.0	395	502	2,976	15.9	700 1,190
2013	King	Texaco	Jefferson	Baker-Bumpus-Smith U	5-61	Aux Vases	33,34-3S-3E	189	189	7.8	8	63	63	13.3	740
3954	Lancaster	Hayes-Wolf Bros	Wabash	Lancaster U	12-58	Bethel	4,9-1N-13W	142	405	35.7	97			2.2	1,400
3916	Lancaster S	Ashland	Wabash	Lancaster S	1-55	Bethel	21-1N-13W	17*	164	4.5†	54†	15†		6.4	1,100
2201	Lawrence	Baldwin & Baldwin	Lawrence	Cummins Farm*	10-57	Bridgeport & Paint Creek	6-3N-12W								
2202	Lawrence	Bradley	Lawrence	C. M. Perkins	2-55	Bridgeport	32-4N-12W	769	3,845*	54.8†	623†	422†	1,907†	7.9	555
2203	Lawrence	Bradley	Lawrence	C. M. Perkins	2-55	Kirkwood	32-4N-12W	801	4,254*	†	†	†	†	5.7	555
2233	Lawrence	Bradley	Lawrence	Pepple	6-57	Kirkwood	30-4N-12W	777	2,868*	134.5†	578†	452†	1,030†	3.9	750
2234	Lawrence	Bradley	Lawrence	L. Gillespie	11-58	Paint Creek	26,35-3N-12W	131	392*	†	†	†	†	7.2	690
2235	Lawrence	Bradley	Lawrence	L. Gillespie	11-58	Cypress	26,35-3N-12W	930	2,506*	92.8†	315†	538†	1,140†	6.1	690

Reservoir statistics (average values)						Development as of 12-31-61					Injection water		Remarks	Map no.	
Depth feet	Net pay thickness feet	Porosity percent	Permeability millidarcys	Oil gravity API	Oil viscosity centipoises	No. of wells		Injection pattern Mod = Modified Irr = Irregular	Acres per input well	Productive acres		Source Sd = Sand Gr = Gravel Prod = Produced Sh = Shallow			Type F = Fresh B = Brine
						Inj.	Prod.			Under inj.	Total				
2,280	41.4	16.0	50	37.0		12	14	5-Spot	20	213	280	Well & Prod	F & B	* Includes 304, 325, & 326.	303
2,330		16.0	80												
2,300	45.0			37.0		5	5	5-Spot	20	73	120	*	*	* Included with 303.	304
2,300	30.0					2	4	5-Spot	20	50	60	*	*	* Included with 303.	325
2,300	44.0					1	1	5-Spot	20	8	30	*	*	* Included with 303.	326
1,374	12.0			36.0		4	11		10	160		Tar Springs	B	* No data 1961. † As of 1-59.	4001
1,400	20.0				5.6	1	5		10	80	80	Prod	B		4002
1,531				37.2	3.5	2	7	Irr	20	40	110	Tar Springs	B	* Includes primary production since 2-59.	4004
2,750	10.0			38.0		2	10		10	270	270	Cypress	B	* Dump flood; unknown.	2613
400	22.0	19.0	225	33.0	13.6			5-Spot	4.5					* No data 1961. † As of 1-57.	203
					19.0									Previously subjected to gas injection. * No data 1961. † As of 1-57.	204
														* No data 1961. † As of 4-57.	205
1,340	30.0	15.0	8	37.5		1	11		10	110	110	Prod	B	* Includes primary production since 6-61.	226
														* No data 1957-61.	206
320-595	24.0 19.0 14.0	19.5	330			48	59	5-Spot	4.5	223	223	Sh Sd & Prod	F & B		207
520	35.0					*	6			120	120	*	*	* Injection well are line wells operated by Forest; see #209.	228
490	48.0	16.6	319	29.2	14.7 at 77°F	86	76	5-Spot	4.4	400		Prod	B	Previously subjected to gas injection.	209
465	35.0	18.9	312	29.7	21.0 at 65°F	66	54	5-Spot	5	243	646	Sh Sd & Prod	F & B		210
420-500	19.0 15.0 30.0	20.6	294			73	60	5-Spot	4.4	236	646	Sh Sd & Prod	F & B		211
507	33.0	18.2	277	29.7	25.5 at 65°F	20	12	5-Spot	4.4	53	646	Prod	B	Previously subjected to air injection.	212
467	35.5	18.6	285	29.7	25.5 at 65°F	36	22	5-Spot	4.4	114	646	Prod	B		213
3,019	17.0	19.0	80	40.0		10	8	5-Spot	36	360	600	Penn & Prod	F & B	* Includes primary production since 2-58.	4134
3,000	7.5	19.1	187	35-39		31	37	5-Spot	10	2,110		Penn & Prod	B		4121
3,100	10.0	15.5	850	35-39		30	63	Perimeter	20	3,220		Weiler & Prod	B	* Includes 4135.	4122
3,050				37.0		4	2	Irr		40	40	Prod	B	* Included with 4122.	4135
1,750	14.0	13.4	22	34.7	6.7 at 81°F	11	7	Irr & 5-Spot	10	263	263	Sh Sd	F	* Includes primary production since 5-51. † As of 12-59.	1412
3,100	9.0					3	12	Line Drive		220	220	Prod & Sh Sd	F & B	* Formerly Calvert. † Includes primary production since 11-56.	4125
2,950	13.0	20.0	155	39.0	3.5 at 97°F	4	4	Peripheral		120	120	Sh Sd	F	* Injection discontinued 11-60. † Includes primary production since 4-54.	4126
2,700	14.0	15.6	54	35-38		23	23	5-Spot	10	480	715	Penn & Prod	B		305
2,800	21.0	17.0		35-38		8	17	5-Spot	10	270	700	Penn & Prod	B		330
2,750	10.0	17.0	40	36.0	9.0 at 60°F	1	2			20	80	Prod	B	* Estimated.	324
2,600	26.0	18.0	125	37-38		9	16	5-Spot	20	300	330	Penn & Prod	B		306
2,735	11.0			37.0		5	4	Perimeter	10	160	160	Penn & Prod	B		2013
2,500	16.0			34.0		11	44	Irr	20	40	500	Lake	F		3954
2,520	10.0					1	3	Irr	30	50	50	Tar Springs	B	* Injection temporarily shut down 10-61. † Includes primary production since 1-55. † Estimated.	3916
														* No data 1957-1961.	2201
900	14.0	18.0	125	36.0	6.1 at 60°F	19+	10+	5-Spot	10	100	100	Buchanan Sd & Prod	B	* Adjusted by operator. † Includes 2203.	2202
1,350	20.0	18.0	100	37.2	4.8 at 77°F	+	+	5-Spot	10	100	100	Buchanan Sd & Prod	B	* Adjusted by operator. † Included with 2202.	2203
1,400	30.0	18.0	75	37.0	5.8 at 60°F	18	17	5-Spot	10	130	150	Buchanan Sd & Prod	B	* Adjusted by operator. † Includes 2257.	2233
1,660	10.0	16.5	25			5	5	5-Spot	10	40	40	Buchanan Sd & Prod	B	* Adjusted by operator. † Included with 2235.	2234
1,550	28.0	17.0	35		4.6 at 80°F	15	36	5-Spot	10	100	120	Buchanan Sd & Prod	B	* Adjusted by operator. † Includes 2234 & 2236.	2235

TABLE 24 — ILLINOIS WATERFLOOD PROJECTS

Map no.	General information							Production and injection statistics							
	Field C = Consolidated	Operator	County	Project U = Unit	Date first inj.	"Formation"	Section, T-R	Water inj., M bbls		Oil prod., M bbls		Water Prod., M bbls		Av. inj. per day per foot bbls	Maximum well-head pressure psi
								Total 1961	Cumulative 12-31-61	Total 1961	Cumulative 12-31-61	Total 1961	Cumulative 12-31-62		
2236	Lawrence	Bradley	Lawrence	L. Gillespie	11-58	Bridgeport	26,35-3N-12W	752	1,506*	†	†	†	†	4.6	690
2241	Lawrence	Bradley	Lawrence	Fyffe	7-59	Cypress	6-3N-12W; 1-3N-13W; 36-4N-13W	953	1,812*	131.3	331	334	469†	8.3	600
2242	Lawrence	Bradley	Lawrence	O'Donnell	4-59	Cypress	17-3N-12W	299	715*	58.6	111	83	115†	4.2	900
2245	Lawrence	Bradley	Lawrence	Sherman Gillespie	10-60	Kirkwood	26-3N-12W	114	131	13.6*	15*			5.6	600
2246	Lawrence	Bradley	Lawrence	Sherman Gillespie	10-60	Paint Creek	26-3N-12W	46	55	*	*			6.3	600
2255	Lawrence	Bradley	Lawrence	Breen	5-60	Benoist	24,25-4N-13W	83	107	41.3*†	66*†	91*	121*	3.8	600
2256	Lawrence	Bradley	Lawrence	Breen	5-60	Cypress	24,25-4N-13W	122	153	*	*	*	*	5.6	600
2257	Lawrence	Bradley	Lawrence	Pepple	8-59	Benoist	30-4N-12W	207	399*	†	†	†	†	5.7	750
2258	Lawrence	Bradley	Lawrence	Whittaker Area	4-61	Paint Creek	2,10,11-3N-12W	199	199	*	*	*	*	5.7	750
2259	Lawrence	Bradley	Lawrence	Whittaker Area	11-60	Cypress	2,10,11-3N-12W	403	406	151.0*	177*	144*	144*	6.1	750
2260	Lawrence	Bradley	Lawrence	E. J. Seed	2-61	Kirkwood	15,16,22-3N-12W	19	19	8.2*†	8*†	0*	0*	5.8	790
2261	Lawrence	Bradley	Lawrence	E. J. Seed	2-61	Jackson	15,16,22-3N-12W	15	15	*	*	*	*	4.8	790
2247	Lawrence	Fairfield Salvage	Lawrence	Buchanan	2-61	Cypress	16-3N-12W	76	76	0	0	16	16	5.3	559
2206	Lawrence	T. W. George	Lawrence	Klondike*	6-52	Bethel	25-5N-13W		9,990†		1,098†				
2243	Lawrence	Gulf	Lawrence	Bell U	6-59	Cypress	1-3N-13W	627	1,382	53.7	142	324	551	9.5	900
2244	Lawrence	Gulf	Lawrence	Bridgeport U	6-59	Cypress	6-3N-12W	702	1,929	324.5	758	412	538	8.6	300
2240	Lawrence	D. S. Huddleston	Lawrence	Vandermark-Albrecht U	8-58	Bridgeport	34-3N-12W	149	469*	16.2	50			8.5	355
2208	Lawrence	W. C. McBride	Lawrence	Crump "40"	4-56	Kirkwood	19-4N-12W	179	964	13.6	221	255	1,012*	4.9	475
2209	Lawrence	W. C. McBride	Lawrence	Crump U 1	12-56	Kirkwood	31-4N-12W	190	680	22.7	96	75	186	4.7	580
2210	Lawrence	W. C. McBride	Lawrence	Neal	6-56	Kirk. & P.C.	29-4N-12W	424	2,046	73.0	425	224	612	3.9	500
2249	Lawrence	W. C. McBride	Lawrence	Hinkle	8-59	McClosky	27-3N-12W	29	69	3.2	4	50	89	5.3	610
2251	Lawrence	W. C. McBride	Lawrence	Combs	3-59	Kirk. & Ben.	20-4N-12W	140	323	26.5	35	45	83	4.8	495
2252	Lawrence	W. C. McBride	Lawrence	Bower-Ross	8-58	Kirkwood	29-4N-12W	219	599	38.6	111	141	231	7.5	325
2253	Lawrence	W. C. McBride	Lawrence	Fyffe (39)	12-56	Kirkwood	31-4N-12W	138	782	14.0	152	129	324	6.3	550
2254	Lawrence	W. C. McBride	Lawrence	Dalrymple	9-59	Kirk., P.C., & Benoist	29-4N-12W	421	1,030	110.0	293	193	286	5.5	500
2262	Lawrence	W. C. McBride	Lawrence	Fyffe U	12-60	Kirkwood	36-4N-13W	329	329	75.0	75	144	144	5.1	400
2211	Lawrence	Murphy	Lawrence	Stoltz	1-55	Bridgeport	32-4N-12W	323	2,071*	34.5†	523†	470†	2,222*†	3.9	380
2212	Lawrence	Murphy	Lawrence	Stoltz	1-55	Kirkwood	32-4N-12W	342	3,402	*	*	*	*	5.1	416
2213	Lawrence	Ohio	Lawrence	14 Projects*	1952	Jack., Kirk., P.C., & Ben.	3 & 4N-12 & 13W	9,948	63,859	3,583.9	12,834	6,712	23,185		
2214	Lawrence	Ohio	Lawrence	9 Projects*	1948	Bridgeport		11,014	78,066	581.2	9,168	7,041	51,465		
2216	Lawrence	Ohio	Lawrence	4 Projects*	11-56	McClosky		3,221	11,290	679.5	1,239	2,276	6,045		
2217	Lawrence	Shakespeare	Lawrence	S. Bridgeport U	10-56	Benoist	20,29,30-3N-12W	618	2,799	80.1	410	303	869	7.0	811
2207	Lawrence	Tekoil	Lawrence	Gray Area	5-53	Jackson Benoist Renault	13,14-4N-13W	831	4,052	62.0	534	529	2,134	2.9	850
2237	Lawrence	R. S. Thompson*	Lawrence	Stoltz Heirs	7-58	Cypress	25-4N-13W	134	164†	39.5	40†	58	58†	3.3	680
2204	Lawrence	Turner	Lawrence	Applegate*	9-52	Cyp. & Jack.	7-4N-12W		843†		22†				
2250	Lawrence W	Houchins	S. Summer U	Lawrence	12-59	Benoist	14,23,24-3N-13W	185	517	59.7	75	31	63	4.6	1,200
704	Lillyville	Indiana Farm Bureau	Cumberland	Krogman*	5-57	McClosky	31-9N-7E		199†		18†		10†		
2502	Livingston	W. H. Krohn	Madison	Kroeger	5-59	Penn	17-6N-6W	*	38*	*	4*	*	12*		
2501	Livingston	M. W. McConnell*	Madison	C. & O. Henke U†	5-52	Penn	17,20-6N-6W		688†		311†				
1201	Louden	W. L. Belden	Fayette	Hinton U	9-56	Cypress	32-7N-3E	1	99	0.0	11			0.1	
1202	Louden	W. L. Belden	Fayette	Unit 25	10-57	Cypress	24,25-8N-3E	498	1,857	83.7	184*			15.2	250
1203	Louden	D. L. Burtschi	Fayette	D. L. Burtschi U	10-53	Cypress	18-7N-3E	39	397*	5.0	122*			3.6	
1205	Louden	Doran	Fayette	Stewart & Dial U	7-57	Cypress	6-7N-3E	72	318	16.2	25	0	0	4.9	275

Reservoir statistics (average values)						Development as of 12-31-61						Injection water		Remarks	Map no.
Depth feet	Net pay thickness feet	Porosity percent	Permeability millidarcys	Oil gravity API	Oil viscosity centipoises	No. of wells		Injection pattern Mod = Modified Irr = Irregular	Acres per input well	Productive acres		Source Sd = Sand Gr = Gravel Prod = Produced Sh = Shallow	Type F = Fresh B = Brine		
						Inj.	Prod.			Under inj.	Total				
990	30.0	19.3	200	29.8	20.8 at 72°F	15	36	5-Spot	10	100	120	Buchanan Sd & Prod	B	* Operator adjusted. † Included with 2235.	2236
1,580	35.0	18.0	100			9	6	5-Spot	10	45	65	Buchanan & Prod	B	* Operator adjusted. † Since 3-60.	2241
1,500	28.0	16.7	15	38.0	4.3 at 79°F	7	5	5-Spot	10	38	160	Buchanan & Prod	B	* Operator adjusted. † Since 3-60.	2242
1,550	28.0	17.0	35		4.6 at 80°F	2	2	5-Spot	40	50	80	Buchanan Sd & Prod	B	* Includes 2246.	2245
1,660	10.0	16.5	25			2	2	5-Spot	40	50	80	Buchanan Sd & Prod	B	* Included with 2245.	2246
1,675	20.0	12.0	5			3*	3*	5-Spot	10	8	160	Bridgeport & Prod	B	* Includes 2256. † Includes primary production since 5-60.	2255
1,530	20.0	16.0	47			*	*	5-Spot	10	8	160	Bridgeport & Prod	B	* Included with 2255.	2256
1,650	20.0	14.0	10			5	7	5-Spot	10 & 40	50	80	Buchanan & Prod	B	* Operator adjusted. † Included with 2233.	2257
1,670	15.0	15.0	10			*	*	5-Spot	40	153	600	Bridgeport	B	* Included with 2259.	2258
1,520	20.0	18.0	35			9*	14*	5-Spot	40	153	600	Bridgeport	B	* Includes 2258.	2259
1,590	10.0					1*	1*	5-Spot	10	2	20		B	* Includes 2261. † Includes primary production since 2-61.	2260
1,500	10.0					*	*	5-Spot	10	2	20		B	* Included with 2260.	2261
1,700	15.0	19.8	108	33.0		3	5	Line Drive	10	200	200	Buchanan	B		2247
1,620	18.0	17.2	80	37.8	5.2 at 80°F	36	31	5-Spot	13.5	750	900	Well	F	* No data 1961. † As of 12-60.	2206
1,650	20.0	18.0	80	28.0		9	5	5-Spot	15	80	80	Bridgeport	B		2243
1,575	25.0	18.0	80	28.0		9	10	5-Spot	20	140	150	Bridgeport	B		2244
988	24.0	20.7	398	29.5	21.0 at 70°F	2	7	Perimeter	10	80	80	Lake & Prod	F & B	* 1960 injection estimated - 145,000 bbls.	2240
1,280	25.0	20.0	90			4	4	5-Spot	10	40	40	River Gr & Prod	F & B	* Since 1-57.	2208
1,420	22.0	20.0	80			5	4	5-Spot	10	40	40	Buchanan Sd & Prod	B		2209
1,390	33.0	20.0	60			9	8	5-Spot	10	80	80	Buchanan Sd & Prod	B		2210
1,750	15.0	20.0	1,500			1	4	5-Spot	40	40	80	Buchanan Sd & Prod	B		2249
1,450	20.0	16.0	40			4	7	5-Spot	10	60	80	Penn & Prod	F & B		2251
1,320	20.0	19.0	120			4	4	5-Spot	10	40	40	Gr & Prod	F & B		2252
1,420	20.0	20.0	80			3	4	5-Spot	10	40	40	Gr & Prod	F & B		2253
1,600	30.0	18.0	75			7	7	5-Spot	10	65	80	Penn Sd & Prod	B		2254
1,650	25.0	18.0	130			7	6	5-Spot	10	80	80	Buchanan Sd & Prod	B		2262
860	25.0	22.3	148	37.0		9	10	5-Spot	3	25	25	Purchased	F & B	* Corrected figure. † Includes 2212.	2211
1,400	18.5	17.3	18	37.0		10	8	5-Spot	3	25	25	Purchased	F & B	* Included with 2211.	2212
						547	494	5-Spot	10	4,384		Gr & Prod	F & B	* Westall-King-Boyd-Sutton-Middagh-Kimmel-Moore-Thorn-Gould-Leighly-Judy-Seed-Ryan-Jenner.	2213
						221	294	5-Spot	10	1,873		Gr & Prod	F & B	* Robins-Johnson-Baltzell-Lewis-Clark-Cooper-Finley-Gee-Kingler.	2214
1,700						31	80	5-Spot	40	950		Gr & Prod	F & B	* Applegate-Williams-Gillespie-Vandermark.	2216
1,800	12.1	17.1	60-75	38.0	6.0 at 84°F	20	18	Mod 5-Spot	20	313	514	Tar Springs	B		2217
1,428	10.0	18.4	95	38.0	5.0 at 85°F	20	29	5-Spot	10	322	422	Bridgeport	B		2207
1,611	14.5	14.6	13												
1,632	15.0	18.5	17												
1,562	16.0	20.0	85	38.0		7	7	5-Spot	10	70	3,600	Prod	B	* Formerly M. G. Curts. † Excludes 1959 & 1960. * No data 1961. † As of 1-58.	2237 2204
2,040	9.2	17.2	37	35.0	4.3 at 81°F	12	9	Split Line	10	294	294	Bridgeport & Prod	B		2250
2,450				35.0	4.8 at 85°F	1	2			20	80	Prod	B	* No data 1961. † As of 12-60. ‡ Estimated.	704
520	10.0					1	4		10	160	160		B	* Inactive during 1961.	2502
525	22.0	16.0		37.0		10	10	5-Spot & Peripheral		80	80	Salem & Prod	B	* Formerly Cahill & Smith. † No data 1961. ‡ As of 12-60.	2501
1,584	20.0	17.4	126	34.0		1	1			20	10		B		1201
1,530	15.0			34.0		6	20		40	240	240		B	* Corrected figure; excluding 1959.	1202
1,650	30.0					1	1		10	20	500	Purchased	F & B	Previously subjected to gas injection. * Corrected figure.	1203
1,522	20.0	19.0	120	32.4		2	4	5-Spot	5	40	40	Tar Springs	B		1205

Map no.	General information							Production and injection statistics							
	Field C = Consolidated	Operator	County	Project U = Unit	Date first inj.	"Formation"	Section, T-R	Water inj., M bbls		Oil prod., M bbls		Water Prod., M bbls		Av. inj. per day per foot bbls	Maximum well-head pressure psi
								Total 1961	Cumulative 12-31-61	Total 1961	Cumulative 12-31-61	Total 1961	Cumulative 12-31-62		
1200	Louden	W. H. Fishburn	Fayette	Rhodes & McCloy	1-54	Cyp., P.C., & Bethel	26,27,34-8N-3E	263	2,673*	28.9	539	207	1,188*	3.2	700
1206	Louden	General American	Fayette	Devore Coop	7-57	Weiler	1-7N-2E	43	195	29.8	122*	31	74	11.8	†
1225	Louden	L. B. Hoss	Fayette	Unit*	2-59	Cypress	31-8N-3E		95†		19†		5†		
1232	Louden	Hughes	Fayette		8-57	Cypress	12-7N-2E	158	623	75.5	76*	36	36*	7.2	0
1204	Louden	Humble	Fayette	Louden	10-50	Weiler, P.C., Beth., & A.V.	7, 8N-3E	26,987	256,805	9,100.3	55,064*	12,299	56,320	4.1	190
1207	Louden	Jarvis Bros & Marcell	Fayette	Homan	3-54	Cypress	29,31,32-7N-3E	2,109	8,967*	161.3	1,603	1,453	5,015	8.0	120
1208	Louden	Jarvis Bros & Marcell	Fayette	Yahey	11-57	Cypress Benoist	6-7N-3E	343	1,366	52.4	175*	198	613	2.6	0
1230	Louden	Jarvis Bros & Marcell	Fayette	Sinclair	8-60	Cypress Paint Creek Benoist	29-8N-3E	365	493	77.6	89	123	142	6.8	0
1209	Louden	B. Kidd	Fayette	B. F. Owens	9-54	Weiler	8-7N-3E	91*	520*	33.2	144	119	530	6.1	415
1210	Louden	Kingwood	Fayette	Yolton	8-57	Cypress	12-7N-2E; 7-7N-3E	173	751	114.2	280*	95	225	4.0	0
1211	Louden	Kingwood	Fayette	Yolton	8-57	Paint Creek	7-7N-3E; 12-7N-2E	20	170	2.8	9*	5	23	1.9	0
1228	Louden	Kingwood	Fayette	Smith	1-58	Cypress	13-7N-2E	55	225	21.9	38	20*	26	6.0	0
1213	Louden	J. J. Lynn Estate	Fayette	E. C. Smith	7-57	Cypress	20-7N-3E	368	1,082	81.9	508	181	446	16.8	170
1214	Louden	Mabee	Fayette	Homan	8-55	Cypress	29-7N-3E	745	1,700		416*†		522*†	92.9	
1215	Louden	Mabee	Fayette	Koberlin	5-57	Cypress	30-7N-3E	177	806		320*		76*†	16.1	
1217	Louden	W. C. McBride	Fayette	Stokes-Weiler	3-56	Weiler	14-8N-3E	150	1,051	43.0	296	42	80	3.1	0
1216	Louden	Mobil	Fayette	Rhodes-Watson	8-57	Cypress Paint Creek Benoist	27,33,34-8N-3E	302	1,474	114.0	610*	179	481		
1224	Louden	Mobil	Fayette	Louden	4-58	Cypress Paint Creek Benoist	32-8N-3E; 5-7N-3E	1,665	5,937	999.0	1,398*	18	56		
1227	Louden	Mobil	Fayette	Buzzard Bros	10-58	Cypress Paint Creek	29-8N-3E	77	113*	4.0	16†	36	166		
1218	Louden	Shell	Fayette	N. Loudon U	11-56	Cypress	20,21-7N-3E	1,844	9,230	80.5	1,378	1,347	5,254	12.0	170
1219	Louden	Shell	Fayette	S. Loudon U	3-55	Cypress	21,28,29-7N-3E	1,175	8,585	104.9	1,668	1,008	5,231	8.3	285
1229	Louden	Texaco	Fayette	Louden S	5-60	Weiler	6-6N-3E; 31-7N-3E	228	313	19.9	23	1,090	1,676	8.3	400
1220	Louden	R. H. Troop	Fayette	Durbin & Force Area	10-56	Cypress	24,26-8N-3E	71*	387*	31.0	168†			6.5	750
1221	Louden	R. H. Troop	Fayette	Hiatt U	9-56	Cypress	29-7N-3E	207	920	39.1	394	253	691	7.1	0
1231	Louden	R. H. Troop	Fayette	W. A. Eagleton	4-61	Weiler	20-8N-3E	13	13	6.7*	7*			7.9	740
1212	Louden	F. E. Wood	Fayette	Louden Ext.	12-55	Cypress	2,3-7N-3E; 34,35,36-8N-3E	4,076	20,303	118.6	2,960*	3,376	13,145	24.9	1,025
688	Main C	W. S. Appling	Crawford	Oblong	7-52	Robinson	9-7N-13W	402	402*	23.7	24*			11.0	500
602	Main C	Ashland	Crawford	Birds 1	5-54	Robinson	9,10,15,16-5N-11W	1,336	17,851	30.9	496			2.8	
603	Main C	Ashland	Crawford	Birds 2	3-57	Robinson	20-5N-11W	431	1,095	23.8	58*			4.3	560
604	Main C	Bell Bros	Crawford	Barrick	10-54	Robinson	13-7N-13W	190	947	19.3	88	183		3.1	612
609	Main C	E. Constantin	Crawford	J. S. Kirk*	8-51	Robinson	29,30,31,32-7N-12W		977†		57†				
610	Main C	E. Constantin	Crawford	Smith*	3-54	Robinson	12-7N-13W; 7-7N-12W								
607	Main C	Crest*	Crawford	Mitchell	6-53	Robinson	24,25-7N-13W	35	910	9.1	101†	15	104†	0.7	450
615	Main C	Crest*	Crawford	Porterville	4-54	Robinson	25,26,35,36-8N-13W	96	1,328†	5.6	38			2.6	440
608	Main C	W. Duncan	Crawford	Tohill-Hughes-Robinson		Robinson	27,28-6N-13W			10.8	11				
606	Main C	Forest	Crawford	Grogan 2 (26)	10-53	Robinson	4,9-7N-13W	541	2,669	47.5	177			4.1	550

Reservoir statistics (average values)						Development as of 12-31-61					Injection water		Remarks	Map no.	
Depth feet	Net pay thickness feet	Porosity percent	Permeability millidarcys	Oil gravity API	Oil viscosity centipoises	No. of wells		Injection pattern Mod = Modified Irr = Irregular	Acres per input well	Productive acres		Source Sd = Sand Gr = Gravel Prod = Produced Sh = Shallow			Type F = Fresh B = Brine
						Inj.	Prod.			Under inj.	Total				
1,570	25.0			39.0		9	10	5-Spot	20	180	180	Tar Springs & Prod	B	Previously subjected to gas injection. * Operator adjusted.	1200
1,454	10.0	18.0	43	37.5	5.2 at 80°F	1	6		10	100	100	Purchased & Prod	B	* Includes primary production since 7-57. † Vacuum.	1206
1,484	60.0	22.0		37.0		1	5	Line		20	20	Tar Springs	B	* No data 1961. † As of 12-60.	1225
1,505	20.0				3.7	3	8	5-Spot	10	120		Tar Springs	B	* Excludes production before 1-61.	1232
1,500	30.0	20.0	105	38.0	2.6 at 79°F	608	914	5-Spot & Sunflower		14,684	16,648	Tar Springs & Prod	B	* Operator adjusted.	1204
1,562	37.0	18.0	200	36.0		18	17	5-Spot	10	320	400	Tar Springs & Prod	B	* Operator adjusted.	1207
1,400	18.0	19.0				4	7	5-Spot	20	70	70		B	Previously subjected to gas injection.	1208
1,540	27.0					4								* Includes primary production since 11-57.	
1,446	25.0			37.0		7	7	Irr		80	80		B		1230
1,528	23.0														
1,450	27.0			38.0		2*	4	5-Spot	20	40	40	Purchased	F & B	* Includes one half the injection from one line well.	1209
1,504	30.0					4	4	5-Spot	20	85	85	Tar Springs	B	Previously subjected to gas injection. * Includes primary production since 8-57.	1210
1,572	29.0					1	1		20	40	40	Tar Springs	B	* Includes primary production since 8-57.	1211
1,504	25.0					1	3	5-Spot	20	20	40	Tar Springs	B	* Cumulative to 12-59 estimated.	1228
1,540	20.0	21.1	150	37.6	5.8 at 79°F	3	7	Mod 5-Spot	20	100	100	Tar Springs & Prod*	B	* Purchased from Humble Oil Co.	1213
1,595	40.0			36.0		4	4	5-Spot	20	80	80	Purchased	B	* Includes primary production since 1-56. † As of 12-60. ‡ Excludes 1959.	1214
1,590	30.0			36.0		4	5	5-Spot	10	80	80	Purchased	B	* As of 12-60. † Excludes 1959.	1215
1,480	25.0	19.4	93			3	3	5-Spot	20	60	60	Tar Springs & Prod	B		1217
1,500				37.5	4.0	7	8	5-Spot	20	110	160	Tar Springs & Prod	B	* Includes primary production since 5-57.	1216
1,560															
1,580															
1,450				37.0	4.0	24	24	5-Spot	20	240	240	Tar Springs & Prod	B	* Includes primary production since 4-58.	1224
1,525															
1,550															
1,400				38.0	4.0	2	6	Irr	20	40	40			* Since 1-60. † Includes primary production since 10-58.	1227
1,420															
1,550	21.0	21.0	180	37.5	4.7 at 60°F	20	20	5-Spot	20	250	250	Tar Springs	B		1218
1,550	18.4	20.4	164	37.5	4.7 at 60°F	21	16	5-Spot	20	350	590	Tar Springs	B		1219
1,600	25.0	18.5		36.5		3	47		10	632	632	Prod	B		1229
1,493	30.0			34.6		2‡	8	Line	20	80	80	Tar Springs & Prod	B	* Only ½ of reported injection; injection wells are line wells. † Since 1-57. ‡ Line wells.	1220
1,536	40.0	19.0*	250*	34.6		2	3	5-Spot	20	40	40	Prod	B	* Estimated.	1221
1,520	6.0			36-37		1	1	5-Spot	20	20		Purchased	B	* Includes primary production since 4-61.	1231
1,550	16.0	20.0	200	38.0	5.0 at 60°F	28	21	5-Spot	20	450	730		F & B	* Includes primary production since 12-55.	1212
980	20.0	40.0	75	36.0		5	12			200		Prod	B	* No data 1952-60.	688
950	30.0	21.0	136	31.0	15.0 at 75°F	44	35	5-Spot	10	530	580	Penn Sd	B	Previously subjected to gas injection.	602
930	25.0	21.0	125	30.8		11	9	5-Spot	10	200	240	Purchased	B	Previously subjected to gas injection. * Includes primary production since 3-57.	603
960	56.0	19.2	126	34.4		3	6	5-Spot	10	40	40	Well	B	Previously subjected to gas injection.	604
900	50.0	17.0	170	34.0		14	37	5-Spot		55	393	Purchased	F	* No data 1961. † As of 1-59.	609
														Previously subjected to gas injection. * No data 1957-1961.	610
900	10.5	21.1	99	33.5	10.0 at 78°F	13	14	5-Spot	10	71	213	Well & Prod	B	* Formerly Wittinghill. † Includes primary production since 1-53. ‡ Excluding 1960.	607
890	20.0	17.0	47	36.4		5	17	Mod 5-Spot	10	50	512	Lake	F	* Formerly G.M.J. † Excludes 1957.	615
900	20.0					12	17	5-Spot	10	130		Prod & Fresh	F & B		608
950	22.4	22.1	156	35.0	10.0 at 78°F	16	16	5-Spot		142	231		F & B	Previously subjected to gas injection.	606

Map no.	General information							Production and injection statistics							
	Field C = Consolidated	Operator	County	Project U = Unit	Date first inj.	"Formation"	Section, T-R	Water inj., M bbls		Oil prod., M bbls		Water Prod., M bbls		Av. inj. per day per foot bbls	Maximum well-head pressure psi
								Total 1961	Cumulative 12-31-61	Total 1961	Cumulative 12-31-61	Total 1961	Cumulative 12-31-62		
611	Main C	Forest	Crawford	Oblong 1 (25)	8-56	Robinson	5,8,9-7N-13W	861	4,053	66.3	428			4.0	550
613	Main C	Forest*	Crawford	Culver F 31		Robinson	5,6,7-7N-12W	84	1,507†	1.0	6†			1.5	
660	Main C	Forest*	Crawford	Culver Pilot		Robinson	6-7N-12W	90	528	3.9	21			2.9	420
669	Main C	Forest	Crawford	Oblong 3 (27)	1958	Robinson	5,8,9-7N-13W	149	379	26.6	61			4.5	550
670	Main C	Forest	Crawford	Stifle U (28)	1958	Robinson		278	1,169	9.2	28			5.7	550
612	Main C	D. W. Franchot	Crawford	Birds*	6-51	Robinson	21,22-5N-11W		24,295†	89.0	1,132		1,000†		650
680	Main C	Indiana Farm Bureau	Crawford	Oak Ridge U	10-61	Benoist	17-5N-12W	10	10	*	*	*	*	4.4	100
681	Main C	Indiana Farm Bureau	Crawford	Oak Ridge U	10-61	Cypress	17-5N-12W	50	50	.9*	1*	2*	2*	4.5	150
685	Main C	Indiana Farm Bureau	Crawford	Dennis Heirs U	10-59	Robinson	29,30-7N-13W	3,471	6,821*	105.1	217*	88†	1,044†	6.9	550
686	Main C	Indiana Farm Bureau	Crawford	C. J. Best	11-60	Robinson	20,29-7N-13W	302	319	9.4	9	4*	4*	6.9	100
687	Main C	Indiana Farm Bureau	Crawford	Stewart Heirs	10-60	Robinson	21-6N-13W	530	602	64.2	71	8*	28*	6.4	250
617	Main C	Kewanee	Crawford	Wright	1-53	Robinson	23,26-6N-13W	490	3,401	24.7	78	342	1,239	6.0	600
619	Main C	Logan	Crawford	Alexander-Reynolds	12-51	Robinson	20-7N-12W	488*	4,176	34.3	365	85	1,057	2.1	420
671	Main C	MacDonell	Crawford	Kirtland U	1-58	Robinson	5-6N-13W	380	1,161	16.9	34	86	145	3.3	470
672	Main C	MacDonell	Crawford	Kirtland-Dee	1-58	Robinson & Penn Sd	5,6-6N-13W	500	1,258	29.1	80	238	579	4.3	316
620	Main C	Mahutska	Crawford	Oil Center	5-54	Robinson	10,11,14,15-6N-13W	1,600	8,773	195.0	1,073	800	2,982	2.2	350
621	Main C	Mahutska	Crawford	Eaton	5-56	Robinson	2,3,10-7N-13W; 34-8N-13W	816	3,194	159.3	481	300	1,224	2.1	350
622	Main C	Mahutska	Crawford	C-T-L	1958	Robinson	28-6N-13W	100		23.0		25		3.5	400
623	Main C	Ohio	Crawford	25 Projects*	1948	Robinson		21,739	142,029	2,038.4	10,614	14,034	67,666		
624	Main C	Partlow & Cochonour	Crawford	Rich U	10-54	Robinson	35,36-6N-12W	432	2,716	6.7	67	232	1,134	10.8	650
626	Main C	E. C. Reeves	Crawford	Billingsley*	12-53	Robinson	34,25-7N-13W		2,736†		89†		92†		
605	Main C	M. F. Roberts	Crawford	Bishop*	11-53	Robinson	20-8N-12W		2,208†		35†				
629	Main C	Tidewater	Crawford	Clark-Hulse	1-52	Robinson	18-7N-13W	465	3,707	14.3	258	462	2,323	3.7	600
630	Main C	Tidewater	Crawford	Birch 1	8-54	Robinson	14-6N-13W	119	1,545	21.4	213	92	475	1.0	200
631	Main C	Tidewater	Crawford & Lawrence	Birds Area	2-52	Robinson	16,20,21,28,29-5N-11W	2,039	9,438	117.9	657*	975	3,790	3.9	550
632	Main C	Tidewater	Crawford	Barrick-Walters	3-54	Robinson	13,24-7N-13W; 18,19-7N-12W	1,679	7,804	203.8	724*	594	1,795	3.5	600
633	Main C	Tidewater	Crawford	Good-Haws	9-57	Robinson	16,17,21,22-6N-13W	494	1,527	91.7	219	61	422	3.7	400
634	Main C	Tidewater	Crawford	Howard	2-52	Robinson	11-7N-13W	288	1,516	62.7	204	194	823	3.5	300
635	Main C	Tidewater	Crawford	Ames	10-56	Robinson	29-7N-13W	560	832	43.2	65	265	387	3.7	500
636	Main C	Tidewater	Crawford	Dennis-Hardin	8-50	Robinson	27,34-6N-13W	515	4,903	33.3	629	441	3,290	4.2	425
637	Main C	Tidewater	Crawford	Thompson	9-52	Robinson	26,27-6N-13W	114	1,068	16.5	148	153	793	2.4	500
638	Main C	Tidewater	Crawford	Henry-Ikemire	2-48	Robinson	10,15-7N-13W	70*	4,187	2.5	469	67	2,347	1.1	
639	Main C	Tidewater	Crawford	Lefever-Musgrave	2-54	Robinson	13-7N-14W	273	1,378	36.9	288	184	495	2.2	640
640	Main C	Tidewater	Crawford	Montgomery-Seitzinger	5-54	Robinson	15,16-5N-11W	110	1,038	5.5	51	83	408	2.5	640
641	Main C	Tidewater	Crawford	Stifle-Drake	6-52	Robinson	13,14-7N-13W	612	2,803	39.2	197	324	1,196	4.8	500
642	Main C	Tidewater	Crawford	Walters-Stahl	11-54	Robinson	13,14-7N-13W	92	646	12.4	92	99	458	2.3	
668	Main C	Tidewater	Crawford	Highsmith	8-56	Robinson	20,21-6N-12W	120	412	8.8	61	68	233	2.3	10
659	Main C	Turner	Crawford	Sanders*	8-52	Robinson	1,2,3-5N-13W; 26,34,35-6N-13W		4,804†		80†				
625	Main C	F. T. Whittinghill	Crawford	"D.I.M."*	7-53	Robinson	25,26-6N-13W		2,928†		75†		549†		
643	Main C	Wilson	Crawford	Hughes-Walker*	8-55	Robinson	26-6N-13W		1,197†		128†				

Reservoir statistics (average values)						Development as of 12-31-61					Injection water		Remarks	Map no.	
Depth feet	Net pay thickness feet	Porosity percent	Permeability millidarcys	Oil gravity API	Oil viscosity centipoises	No. of wells		Injection pattern Mod = Modified Irr = Irregular	Acres per input well	Productive acres		Source Sd = Sand Gr = Gravel Prod = Produced Sh = Shallow			Type F = Fresh B = Brine
						Inj.	Prod.			Under inj.	Total				
950	21.0	19.5	77	33.0		28	24	5-Spot		182	230	Gr & Prod	F & B		611
950	17.0	22.0	50			9	7	5-Spot	10	30		Lake & Prod	F & B	* Formerly General Operations-Culver. † Excluding 1959 & 1960	613
945	14.0	20.8	154	35.5		6	5	5-Spot	10	30		Lake & Prod	F & B	* Formerly General Operations.	660
950	15.0					6	4	5-Spot		42			F & B		669
950	22.4	22.1	156	35.0	10.0 at 78°F	6	2	5-Spot		26			F & B		670
950	24.0	18.9	162	21.7	21.0 at 60°F	86	81	5-Spot	10	750	1,600	River Gr	F	* Includes data on all Franchot properties, including line wells with Tidewater. † Excludes 1961 data.	612
1,590	8.0	14.0	15	35.7	11.0 at 60°F	3	6	Peripheral	10	70		River Gr	F	* Included with 681.	680
1,470	15.0	18.5	57	35.9	10.0 at 60°F	8	19	Peripheral	10	420		River Gr	F	* Includes 680.	681
950	20.0	19.0	120	37.2	12.0 at 60°F	69	88	5-Spot	6.6	380		River Gr	F	* Operator adjusted. † Estimated.	685
950	20.0	15.0	12	37.2	12.0 at 60°F	6	13	5-Spot	6.6	80	80	Well	F	* Estimated.	686
950	38.0	20.7	240	37.0	11.0 at 60°F	6	9	Peripheral	6.6	40		Well	F	* Estimated since 1-61.	687
900	15.0	20.0	245			15	32	5-Spot	10	113	210	Penn	B	Previously subjected to gas injection.	617
940	22.0	20.5	167	36.0	7.0 at 80°F	29	30	5-Spot	5 & 10	280	330	Cypress	B	* Estimated.	619
850	40.0	20.1	143	35.1		8	8	5-Spot	10	30	40	Well	B		671
913	40.0	20.8	158	34.7		8	31	5-Spot	10	40	183	Well*	B	* Salt water well since 9-59.	672
900	20.0	19.0	125			104	100	5-Spot	7.8	780	1,000	Wells, Lake, & Prod	F & B		620
980	12.0	20.0	200	35.0		54	64	5-Spot	10	640	850	Lakes & Prod	F & B		621
900	20.0	20.0	150	35.0		3	12	5-Spot	10	50	130		F & B		622
						629	795	5-Spot	10	4,462		Gr & Prod	F & B	Some projects previously subjected to gas injection. * Wilkin-Thompson-Hughes-Brubaker-Hill-Darrough-Hargis-Haines-Reed-Drake-Fawley-Eaton-Henry-Wilson-Arnold-Price-Wood-Barnes-Newlin-Kirtland-Shiltz-Mann-Hamilton-Shire-Fry-Kent. Ducommun dropped in 1961.	623
1,006	22.0	24.3	240	26.0		5	9	Line	5	60	120	Lake & Prod	F & B		624
925	20.0	30.0	45			6	8	5-Spot	10	115	350	Penn	B	* No data 1961. † As of 12-60.	626
1,000	22.4	22.1	156	35.7	10.0 at 78°F	26	7	5-Spot	10	70	474	Tar Springs & Prod	B	* No data 1961. † As of 1-60.	605
910	25.4	19.9	278	34.0		13	20	5-Spot	10	80	124	Gr & Prod	F & B	Previously subjected to gas injection.	629
881	34.3	19.1	108	32.0		10	8	5-Spot	10	61	90	Purchased	F & B	Previously subjected to gas injection.	630
950	21.7	19.4	197	30.1		65	80	5-Spot	10	755	846	River & Purchased	F & B	Subjected to gas injection 1946-1952. * Includes primary production since 8-54.	631
950	30.8	20.0	152	35.0	7.0 at 60°F	42	50	5-Spot	10	402	380	Cypress & Prod	B	Previously subjected to gas injection. * Includes primary production since 3-54.	632
930	24.4	21.0	378	35.0		15	28	5-Spot	10	152	231	Purchased	F & B	Previously subjected to gas injection.	633
950	20.2	19.6	184	35.3		11	18	5-Spot	10	79	165	Purchased	B	Subjected to gas injection 1935-1953 & since 1957.	634
980	25.3	20.0		35.0		16	21	5-Spot	10	153	168	Purchased	F & B	Previously subjected to gas injection.	635
875	32.0	19.8	178	32.7		11	11	5-Spot	10	93	94	Purchased	F	Subjected to gas injection 1932-1950.	636
860	32.9	19.8	108	33.0		4	5	5-Spot	10	40	40	Purchased	F & B	Subjected to gas injection 1932-1950.	637
935	14.6	21.0	175	35.0	7.0 at 60°F	17	10	5-Spot	4.4	104	210	Tar Springs & Prod	B	Previously subjected to gas injection. * Injection discontinued 10-61.	638
910	24.4	20.0	250	34.0		14	18	5-Spot	10	119	140	Purchased & Prod	F & B	Subjected to gas injection 1934-1948.	639
979	21.7	19.0	144	32.0		6	10	5-Spot	10	55	80	Purchased	F & B	Subjected to gas injection 1934-1948.	640
980	24.4	18.2	221	33.5		14	36	5-Spot	10 & 40	247	380	Purchased & Prod	F & B	Subjected to gas injection since 1934.	641
987	15.9	20.0	100	35.0		7	7	5-Spot	10	54	60	Purchased & Prod	B	Subjected to gas injection since 1934.	642
920	24.6	20.0	80	35.0		6	5	5-Spot		52	96	Purchased	F & B	Subjected to gas injection 1934-1948.	668
880	20.0	21.0	205	32.0		65	57	5-Spot	10	278	720	Water Well	B	Previously subjected to gas injection. * No data 1959-61. † As of 1-59.	659
830	10.5	21.2	98	31-40	17.2 at 70°F	16	14	5-Spot	10	103	103	Prod	B	Previously subjected to gas injection. * No data 1961. † As of 1-60.	625
940	25.0	19.0	83	33.4		9	10	Perimeter		40	40	Gr & Prod	F & B	Previously subjected to gas injection. * Sold to Ohio Oil Co. Included with 623. † As of 1-60.	643

Map no.	General information							Production and injection statistics							
	Field C = Consolidated	Operator	County	Project U = Unit	Date first inj.	"Formation"	Section, T-R	Water inj., M bbls		Oil prod., M bbls		Water Prod., M bbls		Av. inj. per day per foot bbls	Maximum well-head pressure psi
								Total 1961	Cumulative 12-31-61	Total 1961	Cumulative 12-31-61	Total 1961	Cumulative 12-31-62		
1008	Maple Grove C	Ashland	Edwards	Bennington	9-52	McClosky	7-1N-10E	27*	572	10.3	162†			18.0	
1025	Maple Grove C	Mammoth	Edwards	Maple Grove	6-61	McClosky	9,10-1N-10E	*	*	5.9	6	9	9		
4127	Maple Grove C	Winmar	Wayne	W. Bennington	1-57	Aux Vases	13-1N-9E	33*	171*	5.1	32†			6.0	1,050
2004	Markham City W	Gulf	Jefferson	W. Markham City U	4-54	Aux Vases McClosky	3,4,9,10-3S-4E	1,012	5,681	8.7	401	920	3,679	5.7	600
214	Martinsville	Froderman & Connelly	Clark	Froderman & Connelly U*		Partlow	13-9N-14W		3,600†		111†				
1104	Mason N	Texaco	Effingham	Mason N U	10-58	Benoist	9,10-6N-5E	269	734	17.3	58	139	289	16.8	1,170
509	Mattoon	Ashland	Coles	N. Mattoon U	2-61	Cypress	10,11-12N-7E	274	274	7.0*	7*	2	2	10.2	1,120
504	Mattoon	D. Carroll	Coles		4-59	Cypress	23-12N-7E	27	74	*	*	*	*	2.7	650
506	Mattoon	D. Carroll	Coles		4-59	Rosiclare	23-12N-7E	49	108	21.0*†	42*†	13†	15†	3.4	575
503	Mattoon	W. Duncan	Coles	Redman-Macke	6-59	Cypress	23-12N-7E	21	43	0	0	0	0	5.8	1,000
507	Mattoon	W. Duncan	Coles	Redman-Macke	6-59	Rosiclare	23-12N-7E	39	96	4.5	6	36	56	5.4	550
500	Mattoon	Humble	Coles	Mattoon	5-52	Rosiclare Cypress	2,11-11N-7E 35,23,24,25,26,27,36-12N-7E	1,027	10,064	113.6	3,132	473	4,278	4.5	645
501	Mattoon	Noknil	Coles	Mattoon*	11-50	Rosiclare	22-12N-7E		249†		4†		87†		
4282	Maunie N C	Ashland	White	Ribeyre Island U	5-59	Waltersburg Tar Springs	19,30-5S-14W	163	410	66.2	112	68		7.0	1,200
4342	Maunie N C	Herndon	White	*	6-60	Aux Vases	25,36-5S-10E								
4328	Maunie N C	Kirby	White	Coop*	8-61	Rosiclare	23-5S-10E	13	13	0.1	0	0	0	24.4	40
4272	Maunie N C	G. C. Schoonmaker	White	Maunie W U	10-58	Aux Vases	35-5S-10E; 2,3-6S-10E	410	1,212	60.3	114	285	517	7.2	2,000
4213	Maunie S C	Mobil	White	Palestine Sand U	2-53	Palestine	13,24-6S-10E; 18-6S-11E	922	13,215	24.0	1,693*†	887	10,448		
4273	Maunie S C	Skiles	White	Brown-Alford	6-56	Cypress	18-6S-11E	40	184	4.8	39	6	10	5.7	2,200
227	Melrose	Shakespeare	Clark	Melrose U	12-60	Casey	13,24-9N-13W	105	110	2.5	3*	1	1	6.4	355
1505	Mill Shoals	B. Kidd	Hamilton	Gardner	9-56	Aux Vases	24-3S-7E	*	*	4.4	26†				
1506	Mill Shoals	Sohio	Hamilton	B.R. Gray, Trustee	5-52	Aux Vases	1-4S-7E	232	2,461	11.1	341*	86	1,144	5.8	750
4337	Mill Shoals	Texaco	White	Mill Shoals Coop	9-61	Aux Vases	31,32-3S-8E	84	84	3.5	4	2	2	12.0	700
3919	Mt. Carmel	T. W. George	Wabash	N. Mt. Carmel*	8-55	Cypress	4,5-1S-12W		350†		2†		3†		
3918	Mt. Carmel	D. H. Lovelace	Wabash	Wabash U*	10-57	McClosky	5-1S-12W		3†		0†		3†		
3921	Mt. Carmel	O'Meara Bros	Wabash	Mt. Carmel U*	7-54	Cypress	17-1S-12W		1,538†		114†				
3922	Mt. Carmel	Shell	Wabash	Mt. Carmel U	7-54	Cypress	17,18-1S-12W	956	6,767	42.8	863	784	3,839	9.6	525
3923	Mt. Carmel	Skiles	Wabash	Chapman-Courter U	1-55	Cypress	7,18-1S-12W	94	964	15.2	264	63	444	3.4	850
3924	Mt. Carmel	Skiles	Wabash	W. Mt. Carmel	10-55	Tar Springs	18-1S-12W	123	746	5.2	110	98	406	18.8	
3977	Mt. Carmel	Skiles	Wabash	W. Mt. Carmel	9-61	Cypress	18-1S-12W	8	8	0	0	7	7	6.2	1,300
3983	Mt. Carmel	Superior	Wabash	Mt. Carmel N U	6-49	Biehl	4,9-1S-12W	107	779	21.4*	24*	34*	232*	22.6	960
3984	Mt. Carmel	Superior	Wabash	Mt. Carmel N U	8-61	Cypress	4,9-1S-12W	13	13	*	*	*	*	3.8	980
3925	Mt. Carmel	Texaco	Wabash	Stein	2-52	Tar Springs	5,8-1S-12W	140	1,083	0.4	91	85	635	16.5	1,480
3990	Mt. Carmel	C. C. White	Wabash	Buchanan	4-60	Cypress	33-1N-12W	23	35	6.0	6*			4.7	
3926	New Harmony C	Ashland	Wabash	Maud N	4-56	Benoist	5,6,7,8-2S-13W	62	413	10.0	115*	16		5.3	1,500
3927	New Harmony C	Ashland	Wabash	Ravenstein	5-57	Benoist	32-1S-13W	9	76	6.1	44	2		3.6	1,500
4316	New Harmony C	Bell Bros	White	Skiles	8-61	Cypress Benoist Aux Vases	16-4S-14W	105	105	0	0	0	0	4.8	500
4218	New Harmony C	Calstar	White	Ford	1-56	Aux Vases	20,21,22-4S-14W	375	2,202*	31.0	366*			5.6	1,500
4305	New Harmony C	Calstar	White	Ford "A"	11-60	Tar Springs	16,21-4S-14W	38	40	*	*			11.1	
4306	New Harmony C	Calstar	White	Ford "A"	11-60	Cypress	16,21-4S-14W	120	128	*	*			6.2	
4307	New Harmony C	Calstar	White	Ford "A"	11-60	Benoist	16,21-4S-14W	39	41	*	*			7.3	
4308	New Harmony C	Calstar	White	Ford "A"	11-60	Aux Vases	16,21-4S-14W	203	216	*	*			7.2	

Reservoir statistics (average values)						Development as of 12-31-61					Injection water		Remarks	Map no.	
Depth feet	Net pay thickness feet	Porosity percent	Permeability millidarcys	Oil gravity API	Oil viscosity centipoises	No. of wells		Injection pattern Mod = Modified Irr = Irregular	Acres per input well	Productive acres		Source Sd = Sand Gr = Gravel Prod = Produced Sh = Shallow			Type F = Fresh B = Brine
						Inj.	Prod.			Under inj.	Total				
3,100	5.0			38.0		2	4	Flank		110	110	Prod	B	* Controlled dump flood. Injection discontinued 6-61. † Includes primary production since 9-52.	1008
3,300				38.0		4	8			320		Cypress	B	* Unknown; dump flood.	1025
3,125	18.0	22-26	50	37.0		1	4		10	90	120	Cypress	B	* Estimated-dump flood. † Includes primary production since 5-57.	4127
2,900	22.1		269	38.0	3.2 at 99°F	13	14	Mod 5-Spot	20	230	210	Cypress	B		2004
3,000	15.4		230		2.8 at 104°F					150	150				
487	25.0	24.0	43	32.0		50	42	5-Spot	3.6	240	500	Pond	F	* No data 1961. † As of 1-60.	214
2,280	11.0	16.0	24	37-38		4	6	Perimeter	10	100	280	Tar Springs & Prod	B		1104
1,800	10.0	18.0	40	39.0	2.0	8	14	Peripheral	20	360		Penn Sd	B	* Includes primary production since 2-51.	509
1,770	9.0			37.0		3	7	5-Spot	20	100	100	Sewage	F	* Included with 506.	504
1,970	10.0			37.0		4	7	5-Spot	20	100	100	Sewage	F	* Includes primary production since 4-59. † Includes 504.	506
	10.0					1	1	5-Spot		20	30	Sewage	F		503
	10.0					2	3	5-Spot	20	30	30	Sewage	F		507
1,750	13.0	16.0	84	39.0	1.7 at 85°F	48	60	5-Spot	20	846	1,120	Sewage Effluent & Prod	F & B		500
1,950															
														* No data 1957-1961. † As of 1-55.	501
2,305	10.0	18.4	204	36.0		4	8	Irr	20	115	120	Sd & Gr	F		4282
2,345	6.0														
														* No data 1960-1961.	4342
3,016	2.0					2	3	5-Spot	20	100	100	Gr & Prod	F & B	* Coop with Lovelace.	4328
2,950	13.0	15.4	37	38.0	3.0 at 60°F	12	14	5-Spot	10	310	380	Gr	F		4272
2,010				36.6		18	19	5-Spot	20	448	616	Gr & Prod	F & B	* Includes primary production since 2-53. † Operator adjusted.	4213
2,582	10.0					2	2	5-Spot	20	40	40	Sh Sd	F		4273
845	9.0	17.0		34.8	10.2	5	6	Peripheral	20	105	105	Sd	F	* Includes primary production since 12-60.	227
3,243	11.0					1	2	Irr	10	30	30	Hardinsburg	B	* Dump flood. † Includes primary production since 1-57.	1505
3,245	11.0	21.0		37.0		10	4	5-Spot	20	170	170	Gr Bed	F	* Includes primary production since 5-52.	1506
3,200	19.0	15.8	58			3	5	Irr	10	200	200	Gr	F		4337
						3	4	Line		70	70	Well	F	* No data 1961. † As of 1-59.	3919
2,307	8.0					1	2			30	60		F	* No data 1959-61. † As of 1-59.	3918
2,140	13.0			33.0		6	15			234		Well	F	* No data 1957-61. † As of 1-57.	3921
2,075	13.6	19.0	182	39.2		20	24	5-Spot	20	325	570	Surface	F		3922
2,230	19.0	18.2	15			4	6	Peripheral	20	100	100	River & Prod	F & B		3923
1,729	6.0					3	3	Irr	20	70	100	Prod	B		3924
2,046	10.0					1	7			40	160	Prod	B		3977
1,450	13.0	18.0	200	35.7	6.2 at 78°F	1	11	Flank	10	50	120	Gr & Prod	F & B	* Includes 3984.	3983
	7.2	16.0	34	37.4	5.3 at 85°F	4	8	Mod 5-Spot	10	243	243	Gr & Prod	F & B	* Included with 3983.	3984
2,040	11.6	18.9	221	34.8		2	2	Flank		73	73	Sh Sd & Prod	F & B		3925
1,995	13.0	16.4	28	37.0		1	3	Line Drive	10	40	40	Gr	F	* Since 1-61.	3990
2,650	6.5	16.0	60			5	6	Peripheral	20	130	160	Purchased	B	* Includes primary production since 4-56.	3926
2,650	7.0	16.0	65			1	2			20		Purchased	B		3927
2,600	15.0	17.5	55	37.6		4	4	5-Spot	20	60	126	Well	F		4316
3,000		16.8	70												
		19.1	58												
2,840	18.3	15.0	20	33.1	4.8 at 70°F	10	8	5-Spot	20	200	275	Gr Bed	F	* Includes injection and production since pilot flood 3-53.	4218
2,200	9.3	15.5		40.2	3.3 at 70°F	1	2	5-Spot	20	20	40	Sh Gr	F	* Included with 4310.	4305
2,580	13.3	16.0	32	37.7	4.2 at 70°F	4	2	5-Spot	20	80	80	Sh Gr	F	* Included with 4310.	4306
2,700	14.7	16.0		37.5	3.7 at 70°F	1	2	5-Spot	20	20	30	Sh Gr	F	* Included with 4310.	4307
2,820	15.5	15.0	20	33.1	3.7 at 70°F	5	5	5-Spot	20	100	100	Sh Gr	F	* Included with 4310.	4308

TABLE 24 — ILLINOIS WATERFLOOD PROJECTS

Map no.	General information							Production and injection statistics							
	Field C = Consolidated	Operator	County	Project U = Unit	Date first inj.	"Formation"	Section, T-R	Water inj., M bbls		Oil prod., M bbls		Water Prod., M bbls		Av. inj. per day per foot bbls	Maximum well-head pressure psi
								Total 1961	Cumulative 12-31-61	Total 1961	Cumulative 12-31-61	Total 1961	Cumulative 12-31-62		
4310	New Harmony C	Calstar	White	Ford "A"	11-60	Waltersburg	16,21-4S-14W	36	41	22.0*	23*			5.8	
3980	New Harmony C	D. Carroll	Wabash	Friendsville Field	2-61	Cypress	11-1S-13W	41	41	4.1	4	0	0	4.2	630
3928	New Harmony C	Cities Service	Wabash	Brines U	8-56	Benoist	20,21,28,29-1S-13W	813	4,789	140.0	1,148	573	1,585	3.7	1,280
3985	New Harmony C	Cities Service	Wabash	Post-Ley U	3-61	Biehl	3-1S-13W	168	168	*	*	*	*	15.3	900
3986	New Harmony C	Cities Service	Wabash	Post-Ley U	3-61	Cypress	3-1S-13W	55	55	23.4*	23*	66*	66*	7.2	1,238
4220	New Harmony C	Clark & Clark	White	Maunie N U*	10-57	Aux Vases	18,19-5S-14W		929†		150†		190††		
3960	New Harmony C	Continental	Wabash	A. E. Shultz "A"	3-59	Benoist	8,17-2S-13W	88	346	85.6*	150*	89*	136*	2.0	1,500
3961	New Harmony C	Continental	Wabash	A. E. Shultz "A"	3-59	U. Cypress	8,17-2S-13W	272	536	*	*	*	*	15.5	1,500
3963	New Harmony C	Coy	Wabash	Kerwin U	10-59	Biehl	15-3S-14W	468	958	211.7*	472*	280*	592*	11.9	1,220
3988	New Harmony C	Coy	Wabash	Kerwin U	10-59	Benoist	15-3S-14W	341	848	*	*	*	*	4.5	1,520
3989	New Harmony C	Coy	Wabash	Kerwin U	10-59	Aux Vases	15-3S-14W	26	84	*	*	*	*	2.9	1,520
4338	New Harmony C	Coy	White	Gray	3-60	Aux Vases	20-4S-14W	245	499	48.7*	54*	125*	162*	5.6	1,200
4339	New Harmony C	Coy	White	Gray	3-60	Benoist	20-4S-14W	27	41	*	*	*	*	13.7	1,200
4313	New Harmony C	W. Duncan	White	Hughes	11-60	Aux Vases	17-4S-14W	122	137	35.0	35	0	0	4.2	300
4314	New Harmony C	W. Duncan	White	Hughes	11-60	Benoist	17-4S-14W	86	99	0	0	0	0	3.9	300
4315	New Harmony C	W. Duncan	White	Hughes	11-60	Cypress	17-4S-14W	113	128	0	0	0	0	6.1	300
4330	New Harmony C	V. R. Gallagher	White	Greathouse-Waltersburg U		Waltersburg	34-4S-14W	46	70	8.8	9	24	24	10.5	1,350
3959	New Harmony C	T. W. George	Wabash	Keensburg U*	12-58	Cypress	9-2S-13W	702	1,997	165.5	242	229	377†	11.9	750
3929	New Harmony C	G. R. Co.	Wabash	Shultz*	7-51	L. Cypress	7-3S-13W		2,693†		126†		1,982†		
3930	New Harmony C	G. R. Co.	Wabash	Shultz*	5-52	U. Cypress	7-3S-13W		816†		44†		356†		
4224	New Harmony C	Herndon & Ashland	White	Calvin W F	11-52	Aux Vases	8-4S-14W	1,072	7,278	451.0*	2,441*				
4225	New Harmony C	Herndon & Ashland	White	Calvin W F	1953	Benoist	8-4S-14W	194	2,150	*	*				
4226	New Harmony C	Herndon & Ashland	White	Calvin W F	6-57	Cypress	8-4S-14W	65	359	*	*				
4300	New Harmony C	Indiana Farm Bureau	White	Reeves U	1-61	A.V., McCl., & Cypress	28-3S-14W	441	441	12.7	13	2	2	20.2	175
4227	New Harmony C	Inland	White	Bowman's Bend U	12-53	Tar Springs	15,16,21,22-5S-14W	617	5,076	106.4	1,429*	380	2,468	21.1	690
4303	New Harmony C	B. Kidd	White	A. Gray "H"	4-60	Aux Vases	20-4S-14W	12	24	3.3*	5*			4.8	1,000
3936	New Harmony C	Luboil	Wabash	Helm	11-54	Cypress "A"	22-3S-14W	126	1,386	172.3*	3,079*			5.4	1,370
3937	New Harmony C	Luboil	Wabash	Helm	10-54	Cypress "C"	22-3S-14W	194	1,513	*	*			10.6	1,370
3938	New Harmony C	Luboil	Wabash	Helm	12-51	Aux Vases	22-3S-14W	348	4,335	*	*			3.2	1,400
3939	New Harmony C	Luboil	Wabash	Helm	12-51	Benoist	22-3S-14W	362	5,883	*	*			2.1	1,370
3940	New Harmony C	Luboil	Wabash	Helm	12-50	Waltersburg	22-3S-14W	197	2,879	*	*			4.3	1,370
3965	New Harmony C	Luboil	Wabash	Helm	6-59	Biehl	22-3S-14W	83	189	*	*			7.6	1,370
4276	New Harmony C	Mabee	White	O. Smith 1 & 4	8-59	Cypress	16-4S-14W	0*	42	0.0	14				
4301	New Harmony C	Mabee	White	O. Smith 11	5-60	Aux Vases	4-4S-14W	41	92						
4302	New Harmony C	Mabee	White	O. Smith 4	8-60	Benoist	4-4S-14W	216	232					20.0	
3981	New Harmony C	Mobil	Wabash	G. A. Sturman	3-61	Biehl Cypress	10-1S-13W	42	42	11.0	11	4	4		
4274	New Harmony C	Mobil	White	J. J. Bond	8-58	Cypress Paint Creek Aux Vases	8-4S-14W	561	1,087	79.0	156*	198	436		
3982	New Harmony C	Mt. Carmel	Wabash	Friendsville U	2-61	Cypress	2,11-1S-13W	226	226	4.8	5	1	1	5.8	500
4275	New Harmony C	Pure	White	Calvin C	9-58	Tar Springs Cypress Paint Creek Aux Vases	9,16-4S-14W	1,080	2,978	489.5	909	344	470	4.6	1,175
3967	New Harmony C	R. K.	Wabash	Cowling U	8-60	Cypress	23,25,26,35,36-2S-14W	259	373	63.3	63	3	3	10.7	2,000

Reservoir statistics (average values)						Development as of 12-31-61						Injection water		Remarks	Map no.
Depth feet	Net pay thickness feet	Porosity percent	Permeability millidarcys	Oil gravity API	Oil viscosity centipoises	No. of wells		Injection pattern Mod = Modified Irr = Irregular	Acres per input well	Productive acres		Source Sd = Sand Gr = Gravel Prod = Produced Sh = Shallow	Type F = Fresh B = Brine		
						Inj.	Prod.			Under inj.	Total				
2,140	8.4	19.0		37.5	4.4 at 70°F	2	1	5-Spot	20	40	40	Sh Gr	F	* Includes 4305,4306,4307, and 4308.	4310
2,300	10.0			34.0		3	4	5-Spot	20	70	70	Purchased	F & B		3980
2,600	17.0	16.0	35	35.0		35	32	5-Spot	10	589	610	Penn & Prod	B		3928
1,710	8.0	15.0		27.0		5	4	5-Spot	10	70	90	Sh Sd & Prod	F & B	* Included with 3986.	3985
2,310	14.0	16.0		36.0		2	3	5-Spot	10	35	50	Sh Sd & Prod	F & B	* Includes 3985.	3986
2,900	12.0					9	10	5-Spot	10	190	190	Gr	F	* No data 1961. † As of 1-60. ‡ Since 1-59.	4220
2,540	20.0	15.3	41	38.0	7.0	6	11	5-Spot	20	100	160	Prod	F & B	* Includes 3961.	3960
2,424	12.0	19.3	268	38.0	7.0	4	11	5-Spot	20	100	160		F & B	* Included with 3960.	3961
1,800	12.0	21.0	200	33.0		9	10	5-Spot	20	130	130	Sh Sd & Penn	F & B	* Includes 3988 & 3989.	3963
2,700	13.0	16.2	40			16	15	5-Spot	20	310	310	Sh Sd & Penn	F & B	* Included with 3963.	3988
2,800	8.0					3	3	5-Spot	20	40	80	Sh Sd & Penn	F & B	* Included with 3963.	3989
2,850	20.0	17.0	50			6	5	5-Spot	20	80	100	Purchased	F	* Includes 4339.	4338
2,720	5.0	15.0				2	2	5-Spot	20	50	70	Purchased	F	* Included with 4338.	4339
2,820	20.0					4	4	5-Spot	20	80	80	River Gr	F		4313
2,695	20.0						4	5-Spot	20	80	80	River Gr	F		4314
2,565	17.0					3	4	5-Spot	20	80	80	River Gr	F		4315
2,210	12.0	19.0	140			1	1	Line Drive	10	70	70	Purchased	B		4330
2,420	18.0	19.5	250	39.0		9	13	Line & Peripheral	10	250	250	Sh Sd & Prod	F & B	* Carried as pressure maintenance project before 1961. † Since 1-60.	3959
2,600	20.0	18.0	50	38.0		2	4	Irr	10	9	70	Sh Sd & Prod	F & B	* No data 1961. † As of 1-60.	3929
2,500	10.0	17.0†	100†	38.0		2	4		10	9	30	Sh Sd & Prod	F & B	* No data 1961. † As of 1-60. ‡ Estimated.	3930
2,800	30.0	14.0	10	40.0		19	24	Line		260	240		F	Previously subjected to gas injection. * Includes 4225 & 4226.	4224
2,700	15.0	16.0				11	11	Line		90	90		F	* Included with 4224.	4225
2,550	15.0					10	20	Line				Well	F	* Included with 4224.	4226
2,535	12.0			35.6	8.0 at 60°F	5	10	5-Spot		180		River Gr	F		4300
2,260	19.5	17.9	120	35.5		4	11	Peripheral		200	200	Gr & Prod	F & B	* Includes primary production since 1-54.	4227
2,844	7.0					1	2	5-Spot	20	30	40	Purchased	F & B	* Includes primary production since 4-60.	4303
2,520	8.0					8	19				120	Gr Beds	F	* Includes 3937, 3938, 3939, 3940, 3965.	3936
2,550	10.0					5	7				120	Gr Beds	F	* Included with 3936.	3937
2,640	14.0	17.1	44			21	26				260	Gr Beds	F	* Included with 3936.	3938
2,640	14.0	17.1	44			33	27				255	Gr Beds	F	* Included with 3936.	3939
2,115	25.0	20.1	171			5	3				30	Gr Beds	F	* Included with 3936.	3940
1,800	15.0					2	8				40	Gr Beds	F	* Included with 3936.	3965
2,546	10.0					2	4	5-Spot	10	120		Purchased	F	* Not accepting water.	4276
2,638	30.0							5-Spot				Purchased			4301
2,220	10.0											Purchased			4302
1,780				37.0		2	2	5-Spot	20	25	60	Penn Sd & Prod	B		3981
2,335															
2,585				35.5	4.6 at 100°F	4	9	Irr	20	108	120	Sh Sd & Prod	F & B	* Includes primary production since 8-58.	4274
2,705															
2,820															
2,300	13.0	16.1	90	38.8	5.0 at 100°F	9	7	5-Spot	20	155	170	Sh Gr	F		3982
2,208	10.0	18.0	50			14	14	5-Spot	10	320	320	Well & Prod	F & B		4275
2,579	6.5	17.0	40												
2,694	11.0	17.0	50												
2,812	18.0	18.0	70												
2,550	13.3	16.2	56	37.0	4.6	5	9	Line Drive	10	140	140	Well	F		3967

Map no.	General information							Production and injection statistics							
	Field C = Consolidated	Operator	County	Project U = Unit	Date first inj.	"Formation"	Section, T-R	Water inj., M bbls		Oil prod., M bbls		Water Prod., M bbls		Av. inj. per day per foot bbls	Maximum well-head pressure psi
								Total 1961	Cumulative 12-31-61	Total 1961	Cumulative 12-31-61	Total 1961	Cumulative 12-31-62		
3962	New Harmony C	P. Rossi	Wabash	4 W	10-59	Cypress	26-1S-13W	72	154	17.0	39*	72	154	14.1	20
4214	New Harmony C	J. Simpkins	White	Hon-Bump-Crawford	9-56	Aux Vases	32,33-3S-14W; 5-4S-14W	181	963	91.8*	333*	175*		3.9	1,460
4215	New Harmony C	J. Simpkins	White	Hon-Bump-Crawford	9-56	Benoist	32-3S-14W	39	449*	†	†	†		3.3	
4216	New Harmony C	J. Simpkins	White	Hon-Bump-Crawford	9-56	Cypress	33-3S-14W	282	1,358*	†	†	†		7.2	
4320	New Harmony C	J. Simpkins	White	Boultinghouse	11-59	Aux Vases	9,16,17-4S-14W	563	1,090	*	*			5.7	
4321	New Harmony C	J. Simpkins	White	Boultinghouse	11-59	Benoist	16,17-4S-14W	32	83	*	*			1.9	
4322	New Harmony C	J. Simpkins	White	Boultinghouse	11-59	Cypress	16,17-4S-14W	589	1,361	*	*			9.6	
4323	New Harmony C	J. Simpkins	White	Boultinghouse	11-59	Paint Creek	16-4S-14W	71	171	*	*			6.5	
4324	New Harmony C	J. Simpkins	White	Boultinghouse	11-59	Tar Springs	16-4S-14W	176	299	128.5*	185*				
4231	New Harmony C	Sinclair	White	M. S. Donald	10-56	Aux Vases	21,28-4S-14W	189	1,088	19.8*	111*	156*	365*	7.6	1,650
4329	New Harmony C	Sinclair	White	M. S. Donald	9-61	Benoist	21,28-4S-14W	58	58	*	*	*	*	17.3	1,400
4317	New Harmony C	Skelly	White	Calvin-Griffith	4-61	Cypress Benoist Aux Vases	20-4S-14W	133	133	0.1	0	16	16	8.6	
1016	New Harmony C	Skiles	Edwards	Siegert Bottoms	8-58	Cypress	34-2S-14W	13	60	0	0	0	0	2.9	1,500
3931	New Harmony C	Skiles	Wabash & Edwards	Siegert Bottoms	10-51	Bethel	2,3,10-3S-14W 34-2S-14W	181	2,852	30.9	597	109	755	1.5	1,500
3932	New Harmony C	Skiles	Wabash	E. Maud	4-52	Bethel	4,5-2S-13W; 32,33-1S-13W	140	1,215	37.7	288	106	337	5.3	1,450
3933	New Harmony C	Skiles	Wabash	E. Maud	11-52	Cypress	4,5-2S-13W; 32,33-1S-13W	395	1,801	35.0	191	199	715	67.7	200
3934	New Harmony C	Skiles	Wabash	W. Maud	10-50	Bethel	5-2S-13W; 32-1S-13W	23	2,034	12.1	416	8	370	1.8	1,450
3956	New Harmony C	Skiles	Wabash	Cowling-Raber	5-57	Benoist	17-2S-13W	8	48	2.2	6	4	17	1.5	1,450
3957	New Harmony C	Skiles	Wabash	Broster "F"	10-56	Cypress	35-2S-14W	26	116	7.5	19	3	13	2.8	1,500
3974	New Harmony C	Skiles	Wabash	Friends Grove U	3-61	Cypress	3-1S-13W; 34-1N-13W	136	136	0	0	7	7	6.1	1,200
3975	New Harmony C	Skiles	Wabash	Friends Grove U	3-61	Biehl	3-1S-13W; 34-1N-13W	182	182	22.0	22	130	130	6.0	1,200
3976	New Harmony C	Skiles	Wabash	Friends Grove U	3-61	Jordan	3-1S-13W; 34-1N-13W	34	34	0	0	0	0	7.6	1,200
4286	New Harmony C	Skiles	White	Calvin-Griffin C (Potter)	9-59	Benoist	8-4S-14W	87	220	5.6	11	47	64	12.0	1,350
4288	New Harmony C	Skiles	White	Calvin-Griffin C (Potter)	9-59	Aux Vases	8-4S-14W	27*	91	0.9*	4	5*	23	2.4	1,350
4326	New Harmony C	Skiles	White	Calvin-Griffin C (Parsons)	6-60	Aux Vases	8-4S-14W	54	84	1.0	1	2	3	7.4	1,650
3935	New Harmony C	Sohio	Wabash	Updegraff "A"	10-55	Cypress	14-3S-14W	922	2,372	110.9*	1,275*	922	2,372	50.5	
4294	New Harmony C	Sohio	White	Gray "H" & "C"	5-60	T.S., Cyp., Ben., & A.V.	17,20,21-4S-14W	448	923	46.0	66*	117	173		0
4233	New Harmony C	Sun	White	Ford "B"*	3-53	Aux Vases	21-4S-14W	24	318	9.5	127	69	228	6.7	
4293	New Harmony C	Sun	White	Ford "B"	2-60	Cypress	21-4S-14W	148	258	0	0			45.2	
4235	New Harmony C	Superior	White	Kern-Hon U	2-54	Tar Springs	32,33-4S-14W	203	1,393	5.4	411	108	598	1.9	1,400
4236	New Harmony C	Superior	White, Ill. Posey, Ind.	New Harmony Field U	11-56	Aux Vases	3,4,5-5S-14W; 26,27,28,29, 32,33,34-4S-14W	1,754*	9,252*	†	†	†	†	8.7	1,400
4237	New Harmony C	Superior	White, Ill. Posey, Ind.	New Harmony Field U	11-56	Bethel	3,4,5-5S-14W; 26,27,28,29, 32,33,34-4S-14W	3,186*	20,577*	1,054.6†	4,818†	2,601†	12,819†	8.6	1,400
4238	New Harmony C	Superior	White, Ill. Posey, Ind.	Waltersburg Sand U	8-46	Waltersburg	4,5,9,10-5S-14W	1,089	25,867	33.9	4,097	755	8,278*	11.6	1,400
4280	New Harmony C	Superior	White, Ill. Posey, Ind.	Ford U	3-59	Aux Vases	7,8-5S-14W	351	1,491	88.1	184	133	382	6.9	1,700
4312	New Harmony C	Superior	White	Fitton "A" U	3-60	Aux Vases	29-4S-14W	135	359	19.2	25	29	67	15.4	1,200
3948	New Harmony C	A. K. Swann	Wabash	Heil	11-55	Cypress	7,18-3S-13W	178	938	71.1	253*	14	60†	6.5	1,200
4284	New Harmony C	Texaco	White	M. E. Glaze Coop	12-59	P.C. & Ben	8,17-4S-14W	518	1,139	*	*	*	*	5.7	1,300
4285	New Harmony C	Texaco	White	M. E. Glaze Coop	12-59	Cypress	8,17-4S-14W	53	141	*	*	*	*	2.2	1,360
4290	New Harmony C	Texaco	White	M. E. Glaze Coop	12-59	Tar Springs	8,17-4S-14W	24	94	*	*	*	*	1.8	1,400
4291	New Harmony C	Texaco	White	M. E. Glaze Coop	12-59	Aux Vases	8,17-4S-14W	192	442	168.0*	311*	326*	413*	4.9	1,300

Reservoir statistics (average values)						Development as of 12-31-61					Injection water		Remarks	Map no.	
Depth feet	Net pay thickness feet	Porosity percent	Permeability millidarcys	Oil gravity API	Oil viscosity centipoises	No. of wells		Injection pattern Mod = Modified Irr = Irregular	Acres per input well	Productive acres		Source Sd = Sand Gr = Gravel Prod = Produced Sh = Shallow			Type F = Fresh B = Brine
						Inj.	Prod.			Under inj.	Total				
2,303	14.0					1	5			50	50	Prod	B	* Includes primary production since 10-59.	3962
2,800	14.3	13.3	2	33.7	4.7 at 97°F	9	11	5-Spot	20	180	323	River & Gr	F	* Includes 4215 & 4216.	4214
2,650	10.8	12.7	3	35.5	4.5 at 96°F	3	2	5-Spot	20	60	131	River & Gr	F	* Operator adjusted. † Included with 4214.	4215
2,600	8.9	15.6	8	34.5	6.0 at 96°F	12	8	5-Spot	20	240	323	River & Gr	F	* Operator adjusted. † Included with 4214.	4216
2,830	17.6	20.2	62	36.7	4.6 at 80°F	15	15	5-Spot	20	320	330	Sh Gr	F	* Included with 4324.	4320
2,710	15.0	10.5	2			3	2	5-Spot	20	60	60	Sh Gr	F	* Included with 4324.	4321
2,580	11.5	17.0	30	36.8	5.6 at 80°F	14	13	5-Spot	20	280	280	Sh Gr	F	* Included with 4324.	4322
2,690	9.8	10.8	13			3	3	5-Spot	20	60	60	Sh Gr	F	* Included with 4324.	4323
2,200						3	2	5-Spot	20	60	60	Sh Gr	F	* Includes 4320, 4321, 4322, & 4323.	4324
2,830	17.0	14.2	23	37.0		4	7	5-Spot	10	105	123	Well & Prod	F & B	* Includes 4329.	4231
2,695	9.0			37.0		3	5	5-Spot	10	105	123	Well & Prod	F & B	* Included with 4231.	4329
2,578	19.0			36.0		3	2		10	40	40	Purchased	F & B		4317
2,672	19.0														
2,871	18.0														
2,566	12.0					1	1			10	20	Gr & Prod	F & B		1016
2,680	18.0	17.0	75	36.5	3.8 at 81°F	18	21	5-Spot	20	360	410	Gr & Prod	F & B		3931
2,520	8.5	17.0	57	36.1	5.1 at 94°F	8	18	5-Spot	20	200	280	Creek, Sh Sd & Prod	F & B		3932
2,400	8.0	18.5	75	36.2	5.0 at 90°F	2	8	5-Spot	20	50	90	Creek, Sh Sd & Prod	F & B		3933
2,620	12.0	17.2	57	37.0	4.6	3	6	5-Spot	20	100	160	Creek, Sh Sd & Prod	F & B		3934
2,549	15.0					1	4	Line		35	50	Creek, Sh Sd & Prod	F & B		3956
2,531	13.0					2	2			40	40	Gr & Prod	F & B		3957
2,269	13.0					6	4	5-Spot	20	110	116	Sh Sd & Prod	F & B		3974
1,716	18.0					6	6	5-Spot	20	130	160	Sh Sd & Prod	F & B		3975
1,761	16.0					1	1			20	20	Sh Sd & Prod	F & B		3976
2,680	10.0					2	1	5-Spot	20	40	40	Sh Gr & Prod	F & B		4286
2,800	20.0					2	1	5-Spot	20	30	40	Sh Gr & Prod	F & B	* Shut down 10-61.	4288
2,855	20.0					1	2			25	50	Sh Gr & Prod	F & B		4326
2,500	25.0	21.0	200	39.5		2	11	Line	10	120	200	Prod	B	* Total lease production - Cypress, Benoist, Aux Vases & McCl commingled.	3935
				38.4		10	11	5-Spot	20	210	210	Gr	F	* Includes primary production since 5-60.	4294
2,885	10.0	13.0	30	32.5		1	2			20	80	Gr	F	* Cooperative flood with Calstar.	4233
2,600	9.0					1	4			50	40	Prod	B		4293
2,240	21.0	17.3	44	38.0	5.5 at 85°F	14	6			121	121	Gr Beds	F		4235
2,460	8.9	17.9	48	36.4	3.7 at 96°F	62	131	5-Spot	20	2,029	2,029	Gr & Prod	F & B	* Includes 4244. † Included with 4237.	4236
2,340	12.4	15.4	32	36.8	4.3 at 94°F	82	183	5-Spot	20	2,576	2,576	Gr & Prod	F & B	* Includes 4240. † Includes 4236, 4240 & 4244.	4237
2,206	43.0	19.2	475	36.8	2.9 at 86°F	6	12	Split line		725	725	Gr & Prod	F & B	* Operator adjusted.	4238
2,872	12.7	18.1	43	38.0	3.7 at 96°F	11	17	Split line & 5-Spot	10	262	262	Gr & Prod	F & B		4280
2,488	4.0	16.2	245	36.4	3.7	6	5	5-Spot	20	141	141	Gr & Prod	F & B		4312
2,450	15.0					5	9			140	140	Gr Bed	F	* Operator adjusted. † Since 1-59.	3948
2,670	25.0			36.4		10	9	5-Spot	10	200	200	Sh Sd & Prod	F & B	* Included with 4291.	4284
2,570	11.0			36.4		6	8	5-Spot	10	140	200	Sh Sd & Prod	F & B	* Included with 4291.	4285
2,215	9.0			36.4		4	3	5-Spot	10	200	200	Sh Sd & Prod	F & B	* Included with 4291.	4290
2,825	12.0			36.4		9	10	5-Spot	10	200	200	Sh Sd & Prod	F & B	* Includes 4284, 4285 & 4290.	4291

Map no.	General information							Production and injection statistics							
	Field C = Consolidated	Operator	County	Project U = Unit	Date first inj.	"Formation"	Section, T-R	Water inj., M bbls		Oil prod., M bbls		Water Prod., M bbls		Av. inj. per day per foot bbls	Maximum well-head pressure psi
								Total 1961	Cumulative 12-31-61	Total 1961	Cumulative 12-31-61	Total 1961	Cumulative 12-31-62		
4333	New Harmony C	Texaco	White	Bramlett	11-61	Tar Springs	17-4S-14W	4	4	0.4*	0*	1*	1*	6.8	100
4334	New Harmony C	Texaco	White	Bramlett	11-61	Cypress	17-4S-14W	3	3	*	*	*	*	4.9	1,260
4335	New Harmony C	Texaco	White	Bramlett	11-61	Paint Creek	17-4S-14W	3	3	*	*	*	*	2.1	450
4240	New Harmony C	Tidewater	White	E.S. Dennis "A"*	7-51	Bethel	28,33-4S-14W								
4241	New Harmony C	Tidewater	White	O. R. Evans	1-56	Aux Vases	4-4S-14W	536*	3,476*	44.2*	425*	317*	1,357*	2.3	1,600
4242	New Harmony C	Tidewater	White	O. R. Evans	10-49	Biehl	4-4S-14W	*	*	*	*	*	*	*	*
4243	New Harmony C	Tidewater	White	O. R. Evans	1-50	McClosky	4-4S-14W	*	*	*	*	*	*	*	*
4244	New Harmony C	Tidewater	White	E.S. Dennis "A"	9-57	Aux Vases	33-4S-14W	*	1,531*†	†	227†	†	781†		
4311	New Harmony C	Tidewater	White	O. R. Evans	10-49	Cypress	4-4S-14W	*	*	*	*	*	*	*	*
4283	New Harmony C	J. H. Vandembark	White	Calvin-Hon U		Tar Springs Cypress Benoist Aux Vases	9-4S-14W	682	1,898	115.5	241	537	915	6.2	1,200
3949	New Harmony C	West	Wabash	C. W. Raber*	10-56	Biehl	19-2S-13W; 24-2S-14W								
4341	New Harmony C	West	White	D. Evans	10-49	McClosky	4-4S-14W		4*	6.5†	53†		0*		
4289	New Harmony S (Ind.)	Indiana Farm Bureau	White, Ill. Posey, Ind.	Mink Island U	7-59	Waltersburg	22-5S-14W	1,908	4,220	*	*			24.2	500
4319	New Harmony S (Ind.)	Indiana Farm Bureau	White, Ill. Posey, Ind.	Mink Island U	8-61	Hardinsburg	22-5S-14W	43	43	*	*			1.7	700
4247	New Haven C	Hiawatha	White	New Haven U	7-54	Cypress	17-7S-11E	120	1,028	50.7*	542*	122*	222*	2.7	
4248	New Haven C	Hiawatha	White	New Haven U	7-54	Tar Springs	17-7S-11E	2	92	*	*	*	*	2.5	
4278	New Haven C	Sinclair	White	G. N. Boetticher	8-59	Cypress	19-7S-11E	5	13	12.3	22*	6	11	1.1	1,400
2014	Oakdale	Texaco	Jefferson	Green-Vanderheid U	8-61	Aux Vases	12-2S-4E	95	95	0	0	21	21	13.9	700
223	Oak Point	D. B. Lesh	Clark	B. Finney*	10-58	Aux Vases	31-9N-14W		163†		11†		81†		
2600	Odin	Ashland	Marion	Odin	10-49	Cypress	1,12,13-2N-1E; 6,7,18-2N-2E	1,080	7,353	22.0	1,308			13.4	1,000
000	Old Ripley	Cahill & Smith	Bond	Ripley U	9-57	Penn	21,28-5N-4W	170	540	13.0	28	52		2.3	555
1903	Olney C	Gulf	Jasper	Bessie	5-54	McClosky	23-5N-10E	126	1,099	8.1	76	126	668	24.6	0
3407	Olney C	Gulf	Richland	E. Dundas U	10-56	McClosky	25,26,35,36-5N-10E	157	895	28.6	146	81	170	23.9	600
1904	Olney C	Sohiot	Jasper	Dundas E U	4-55	Ohara	14-5N-10E	136*†	2,003*†	3.1†	142†	68†	1,378†	28.1	0
3408	Olney C	Texaco	Richland	E. Olney U	3-51	McClosky	23,24,25,26-4N-10E	470	2,997	26.7	200	79	940	60.7	1,230
3420	Olney C	Texaco	Richland	Olney	11-46	McClosky	22,27-4N-10E	291	2,994	38.7	393	339	1,933	61.4	1,325
3422	Olney S	Ring & Kinsell	Richland	Unit	6-61	McClosky	28-3N-10E	32	32					24.5	500
307	Oskaloosa	Texaco	Clay	Oskaloosa U	1-53	Benoist	26,27,34,35-4N-5E	529	5,799	71.3	1,091	276	1,975	6.8	1,400
3409	Parkersburg C	Ohio	Richland	Parkersburg U*	3-55	McClosky	29-2N-14W	554	3,418	7.4	146	215	1,181		
1017	Parkersburg C	Yingling	Edwards	Parkersburg U*	2-59	U. Cypress	31-2N-14W		91†		*		*		
1020	Parkersburg C	Yingling	Edwards	Parkersburg U*	2-59	L. Cypress	31-2N-14W		424†		39†		69†		
308	Passport	Shakespeare*	Clay	Stanley-Hinterscher-Malin U	9-57	McClosky	12-4N-8E	17	82†	2.3	7‡			7.4	695
327	Passport	Shakespeare	Clay	Passport U	7-58	McClosky	11,12,14-4N-8E	823*	2,733*	107.7	291	593	1,072	45.1	
3417	Passport S	Continental*	Richland	Passport S U	8-59	Cypress	18-4N-9E	96	177	13.1	25†	17	28	16.5	1,500
2601	Patoka	Karchmer*	Marion	Patoka Benoist	9-43	Benoist	20,21,28,29-4N-1E	1,989	55,010	27.3	6,441	2,900	42,908	5.0	360
2602	Patoka	Karchmer*	Marion	Patoka Rosiclare U	1948	Rosiclare	21,28,29-4N-1E	597	7,993	21.1	1,445†	290	2,918	8.6	460
2603	Patoka	Karchmer*	Marion	Stein U	8-51	Cypress	28-4N-1E	94	1,014	1.4	60†	102	793	4.3	470
2614	Patoka	Kewanee	Clinton & Marion	W. Patoka Trenton U	6-61	Trenton	1-3N-1W; 6-3N-1E; 31,32-4N-1E	382	382	5.6	6	64	64	17.5	528
4250	Phillipstown C	Bayview	White	Grayville U	8-54	Cypress	20,29-3S-14W	46	553	7.0	112*	59		3.2	1,500
4249	Phillipstown C	C. E. Brehm	White	Phillipstown U "B"	1-54	Cypress	19-4S-11E	37	261*	6.5	75†			4.4	1,000

Reservoir statistics (average values)						Development as of 12-31-61					Injection water		Remarks	Map no.	
Depth feet	Net pay thickness feet	Porosity percent	Permeability millidarcys	Oil gravity API	Oil viscosity centipoises	No. of wells		Injection pattern Mod = Modified Irr = Irregular	Acres per input well	Productive acres		Source Sd = Sand Gr = Gravel Prod = Produced Sh = Shallow			Type F = Fresh B = Brine
						Inj.	Prod.			Under inj.	Total				
2,215	9.0					1	7		10	80	80	Sh Sd & Prod	F & B	* Includes 4334 & 4335.	4333
2,570	11.0					1	7		10	80	80	Sh Sd & Prod	F & B	* Included with 4333.	4334
2,670	25.0					1	7		10	80	80	Sh Sd & Prod	F & B	* Included with 4333.	4335
														* Included with 4237.	4240
2,800	21.2	14.7	26			7	12	5-Spot	20	157	167	Sh Gr & Prod	F & B	* Includes 4242, 4243 & 4311.	4241
1,850	19.2	14.0	26			*	*	*	*	*	*	*	*	* Included with 4241.	4242
2,900	19.3	16.0	200			*	*	*	*	*	*	*	*	Previously subjected to gas injection. * Included with 4241.	4243
2,800	8.4	18.0	25			17	16	5-Spot	10	148	150	Sh Gr	F	* Included with 4236. † Included with 4237. ‡ As of 12-60	4244
	32.1	19.9	125			*	*	*	*	*	*	*	*	* Included with 4241.	4311
2,350	9.0					10*	9	5-Spot	20	170	170	Sh Well	F	* 24 zones.	4283
2,550	6.0														
2,800	6.0														
2,900	14.0														
														* No data 1957-61.	3949
						1	4		10	50	50	Well	F	* 1958 only. † Estimated.	4341
2,050	18.0	18.0	300	35.9	7.9 at 60°F	12	49	Peripheral	10	760		River Gr	F	* Waterflood production for Illinois portion of this project is unknown.	4289
2,305	20.0	17.0	158	37.0	5.7 at 60°F	8	15	Line Drive	10	250		River Gr	F	* Waterflood production for Illinois portion of this project is unknown.	4319
2,445	10.0					13	18			390	477	Prod	B	* Includes 4248.	4247
2,110	11.0					*	*			360	447	Cypress	B	* Included with 4247.	4248
2,435	12.0	17.0		36.0		1	3		10	40	40	Prod	B	* Includes primary production since 8-59.	4278
2,870	15.0	20.2	120	36-37		3	2	Irr	10	100	100	Penn & Prod	B		2014
1,180	20.0			36.0		2	6		10	120		Well	B	* No data 1961. † As of 12-60.	223
1,700	15.0	20.0	78	38.0	8.3 at 69°F	14	16	Perimeter	10	230	290	Tar Springs	B		2600
600	20.0			36.0		10	11	5-Spot		110	110	Well & Prod	F & B		000
2,941	14.0	16.6	775	37.8	2.5	1	2		20	40	40	Prod	B		1903
2,985	6.0	12.5		41.4		3	4	5-Spot	40	220	360	Penn Sd	B		3407
2,900	8.0			35.0		4	5	Perimeter	10	102	180	Cypress	B	* Dump flood. † Sold 5-61. No data after 5-61.	1904
3,100	5.3	13.8	522	37.0	2.6 at 99°F	4	4	Perimeter	20	458	458	Penn & Prod	B		3408
3,000	13.0	13.8	500	37.0		1	5		20	280	280	Prod	B		3420
3,150	6.0					1	4			100	200	Cypress	B		3422
2,600	14.2	15.6	54	37-38	6.4 at 60°F	15	9	Perimeter	10	396	396	Penn & Prod	B		307
3,100	5.0					5	5			200		Cypress & Prod	B	* No longer includes 3416.	3409
2,770	6.7	16.4	42	37.2	3.9 at 95°F	1	4	Mod Line	20	90	90	Well	B	* No data 1961. † As of 12-60. ‡ Includes with 1020.	1017
2,850	2.7	17.1	181	37.2	3.9 at 95°F	3	8	Mod Line	20	256	256	Well	B	* No data 1961. † As of 12-60. ‡ Includes 1017.	1020
3,015	9.0					1	2	Irr		10	60	Prod	B	* Formerly Mobil. † Injection discontinued 1-59 to 4-61. ‡ Excludes 1960.	308
3,000	10.0	16.9	911†	38.2	3.0 at 102°F	5	24	Peripheral	10	305	305	Cypress & Prod	B	* Dump flood. † Estimated.	327
2,700	8.0	15.0	60			2	2	Line Drive	10	160	160	Penn Sd & Prod	B	* Formerly Calvert. † Includes primary production since 8-59.	3417
1,410	27.0	19.0	110	39.0		40	47	5-Spot	10	527	527	Tar Springs	B	* Formerly Sohio.	2601
1,550	9.0	18.8	223	40.0	4.1	21	12	Perimeter		445	445	Tar Springs	B	* Formerly Sohio. † Includes primary production since 1948.	2602
1,280	10.0	21.0	32	39.0	5.5 at 60°F	6	2	Peripheral		61	61	Tar Springs	B	* Formerly Sohio. † Includes primary production since 8-51.	2603
3,930	17.0	8.0	3			6	20	Irr	20		640	Penn Sd & Prod	B		2614
2,800	9.6	18.6	64	34.5	5.2 at 85°F	4	5	Flank	20	128	128	Purchased	F	* Includes primary production since 8-54.	4250
2,700	20.0					2	7	Irr		150	150	Penn Sd	B	* Injection shut down 6-56 thru 6-58. † Includes primary production since 1-54.	4249

Map no.	General information							Production and injection statistics							
	Field C = Consolidated	Operator	County	Project U = Unit	Date first inj.	"Formation"	Section, T-R	Water inj., M bbls		Oil prod., M bbls		Water Prod., M bbls		Av. inj. per day per foot bbls	Maximum well-head pressure psi
								Total 1961	Cumulative 12-31-61	Total 1961	Cumulative 12-31-61	Total 1961	Cumulative 12-31-62		
4251	Phillipstown C	British American	White	N. Calvin U	6-51	Penn	31-3S-14W	301	3,342	24.4	1,187	218	2,281	2.8	1,098
4298	Phillipstown C	Eason	White	Clark Benoist	6-60	Benoist	30-4S-11E	205	333*	69.8	89*	37	59*	17.6	1,700
4277	Phillipstown C	Kirby	White	W.P.B.S. U	9-59	Benoist	26,35-4S-10E	583	980	72.0	121	187	387*	12.1	1,550
4253	Phillipstown C	Phillips	White	Flora U	9-53	Degonia	24-4S-10E	38	930	6.7	89	39	506	3.4	1,340
4254	Phillipstown C	Phillips	White	Laura	3-52	Bethel	19-4S-11E	38	196*	2.4	7	15	35	5.2	1,340
4255	Phillipstown C	Phillips	White	Phillipstown U	10-57	Benoist Aux Vases	30-4S-11E	293	1,515	14.5	90	92	344	8.8	2,020
4257	Phillipstown C	Sun	White	Phillipstown U	2-56	Tar Springs	6-5S-11E	73	144	2.1	10*	0	0	9.5	1,560
2616	Raccoon Lake	Texaco	Marion	Raccoon Lake U	7-61	McClosky	3-1N-1E	152	152	42.0*	42*	150*	150*	34.8	1,000
2617	Raccoon Lake	Texaco	Marion	Raccoon Lake U	7-61	Rosiclare	3-1N-1E	72	72	*	*	*	*	16.5	800
3605	Raleigh	Kewanee	Saline	Raleigh U	10-60	Aux Vases	10,15,16-8S-6E	283	371	74.9	85*	22	35*	38.8	115
3604	Raleigh S	C. E. O'Neal	Saline	Raleigh U	12-60	Aux Vases	20-8S-6E	165	169*	11.6	12	18	19	15.1	523
2900	Raymond E	Mobil	Montgomery	Foster-Poggenpohl U	8-59	Penn	15,22-10N-4W	5	18	1.1	2*	2	6		
2015	Roaches N	E. M. Self	Jefferson	Wacker	7-56	Benoist	31-1S-1E		78*	19.6†	99†				
2009	Roaches N	Texaco	Jefferson	Roaches N U	8-60	Benoist	8-2S-1E	282	375	4.3	4	239	345	26.1	795
3970	Rochester	Ashland	Wabash	N. Rochester U	7-60	Penn Waltersburg	11,14-2S-13W	196	235	24.7	26			4.2	680
3972	Rochester	Ashland	Wabash	Rochester Coop	1960	Penn	14-2S-13W	351	450	37.7*	47*	19†	19†	20.1	600
3968	Rochester	J. H. Gilliam	Wabash	Kennard	6-60	Penn	14-2S-13W	353	473	108.8*†	130*†	22†	47†	6.5	700
3987	Rochester	J. H. Gilliam	Wabash	Kennard	6-60	Waltersburg	14-2S-13W	246	306	*	*	*	*	9.0	400
1418	Roland C	Humble	White & Gallatin	S. Roland	6-59	Aux Vases	16,21,22-7S-8E	139	418	10.9	17	28	52	6.3	700
4258	Roland C	Humble	White	S. W. Roland U	6-55	Waltersburg	14,15,16-7S-8E	1,550	12,117	242.8	1,167	619	2,513	36.3	300
4259	Roland C	Humble	White	Stokes U	7-54	Hardinsburg	5-6S-9E	280	3,463	12.7	534	72	1,197	16.5	750
1413	Roland C	Indiana Farm Bureau	Gallatin	Omaha U	3-53	Waltersburg	20,21,28,29-7S-8E	1,161	10,311	67.3	1,418*	20†	3,630†	28.4	1,100
4318	Roland C	Indiana Farm Bureau	White	E. Roland U	12-61	Aux Vases	2-7S-8E	29	29	0	0	0	0	5.8	90
4260	Roland C	Pure	White	Stokes-Brownsville U	4-56	Hardinsburg	36-5S-8E; 31,32-5S-9E; 1,12-6S-8E	1,703	10,393	159.0	1,966	1,411	4,469	8.1	750
4261	Roland C	Shell	White	Iron U	12-50	Hardinsburg	23,24,25-6S-8E	1,516	13,130	50.6	1,890*	863	6,599	7.9	524
1515	Rural Hill N	Inland	Hamilton	Moore U	5-60*	Cypress	2-6S-5E; 34,35-5S-5E	229	509	12.1	23†	44	68†	26.1	840
319	Sailor Springs C	Alco*	Clay	Clay City NE	2-55	Cypress	8-3N-7E	777	4,000	26.4	313	365		35.4	600
318	Sailor Springs C	Ashland	Clay	E. Flora	11-56	McClosky	16,21-3N-7E	166	774	20.8	127*	551†		25.3	
328	Sailor Springs C	Ashland	Clay	Sailor Springs	4-58	Cypress Tar Springs	26-4N-7E	276	1,063	14.0	62*	224†		27.0	1,075
1100	Sailor Springs C	Ashland	Effingham	Bible Grove	7-54	Rosiclare McClosky	28,29-6N-7E	296*	1,838*	36.4	175††			18.0	
309	Sailor Springs C	Cities Service	Clay	Wyatt	9-53	Aux Vases	13-5N-7E	77	848	1.7*	40*	49*	446*	11.4	150
334	Sailor Springs C	Cities Service	Clay	Wyatt	1-61	Rosiclare	13-5N-7E	23	23	*	*	*	*	6.2	100
1102	Sailor Springs C	W. Duncan	Effingham	Brink	12-57	Cypress	34-6N-7E	62	302	21.4	48		6*	24.3	380
1103	Sailor Springs C	Kingwood	Effingham	Nadler & Joergens	6-55	Rosiclare McClosky	28-6N-7E	252*	1,342*	13.7	86†	158	601	15.3	
312	Sailor Springs C	W. C. McBride	Clay	Goldsby-Dickey	9-55	Cypress	34-4N-7E	60	469	4.0	20	21	89*	11.0	300
313	Sailor Springs C	W. C. McBride	Clay	Duff-Keck	7-53	Cypress	26,35-4N-7E	232	1,197	10.0	121	86	418*	8.8	1,170
311	Sailor Springs C	Mobil	Clay	Sailor Springs	3-55	Cypress	14,15,23-4N-7E	388	3,318	84.0	698*	210	1,537		
333	Sailor Springs C	Rock Island O. & R.	Clay	Bowers	9-61	McClosky	16-3N-7E	24	24	2.0*	2*	5	5	22.2	†
315	Sailor Springs C	Shulman Bros	Clay	Colclasure & Hardy	7-57	Cypress	10-3N-7E	177	493	4.3	19	67	333	32.2	1,500
329	Sailor Springs C	Skiles	Clay	N. Sailor Springs U	11-56	Rosiclare	2-4N-7E; 35-5N-7E	470	1,316	15.4	42	131	465	53.6	1,820*
1106	Sailor Springs C	Sohio	Effingham	Rosiclare Lime U	6-61	Rosiclare	32-6N-7E; 5-5N-7E	459	459	22.5	23	17	17	42.9	*

Reservoir statistics (average values)						Development as of 12-31-61					Injection water		Remarks	Map no.	
Depth feet	Net pay thickness feet	Porosity percent	Permeability millidarcys	Oil gravity API	Oil viscosity centipoises	No. of wells		Injection pattern Mod = Modified Irr = Irregular	Acres per input well	Productive acres		Source Sd = Sand Gr = Gravel Prod = Produced Sh = Shallow			Type F = Fresh B = Brine
						Inj.	Prod.			Under inj.	Total				
1,550	29.0	17.6	86	32.0		10	14	5-Spot	10	130	130	Tar Springs & Prod	B		4251
2,800	8.0	16.3	52	36.0		4	7	Mod 5-Spot	10	110	159	City & Prod	F & B	* Operator adjusted.	4298
2,840	11.0	15.6	150	38.0		12	12	5-Spot & Line	20	160	270	Penn & Prod	B	* Operator adjusted.	4277
2,000	15.0	19.0	100	37.0		2	5	5-Spot	10	25	70	Sh Sd & Prod	B		4253
2,800	10.0	15.0	46	37.0		2	5			20	40	Prod	B	* No injection 8-54 to 9-56.	4254
2,800	11.0	15.0*	50*	35.0		7	9	5-Spot	10	112	180	Penn & Prod	B	* Estimated.	4255
2,900	15.0	16.0*	100*	36.0											
2,300	7.0					3	1		10	40	135	Prod	B	* Operator adjusted.	4257
1,950	6.0	10.8	292			4	6	Perimeter	10	150	150	Prod	B	* Includes 2617.	2616
1,930	6.0	13.3	448			4	5	Perimeter	10	150	150	Prod	B	* Included with 2616.	2617
2,945	10.0	24.0	472			2	5	Irr	10		80	Paint Creek & Prod	B	* Operator adjusted.	3605
2,850	15.0	19.0	176	38.0	3.3 at 100°F	2	4	Split Line	10	40	60	Prod	B	* Operator adjusted.	3604
595				34.1		2	2	Irr	10	20	40	Penn Sd & Prod	B	* Includes primary production since 8-59. * 1957, 1958 only. † Estimated.	2900 2015
1,930	10.0	14.8		37.2		2	19		10	460	460	Prod	B		2009
1,285	12.0	18.9	120			4	9	Peripheral		100		River Gr	F		3970
1,960	20.0														
1,285	12.0					4	4	Peripheral	10	70		Purchased	F	* Includes primary production since start of flood. † Estimated.	3972
1,280	30.0	16.0	164	36.0	5.9	5	8	Line	10	80	80	Sh Sd & Prod	F & B	* Includes primary production since 6-60. † Includes 3987.	3968
1,950	25.0	18.0	210	37.0	5.1	3	8	Line	10	60	60	Sh Sd & Prod	F & B	* Included with project 3968.	3987
2,920	20.0	16.2	61	32.0		3	3	Peripheral		62	103	Penn	B		1418
2,175	13.0	19.5	297	30.0	9.2 at 83°F	9	21	Flank		571	577	Penn	B		4258
2,530	11.6	18.8	259	38.5		4	2	5-Spot	20	127	207	Penn & Prod	B		4259
1,695	14.0	19.0	225	37.2	8.1 at 60°F	8	9	Peripheral	10	336		Prod	B	Previously subjected to gas injection. * Includes primary production since 3-53. † Estimated.	1413
2,935	20.0	14.2	4	35.6	8.5 at 60°F	8	9	5-Spot	20	260			B		4318
2,628	15.5	17.5	106	38.6		37	33	5-Spot	16	590	1,360	Penn Sd	B		4260
2,500	25.0	17.6	152	36.5		21	22	5-Spot	20	390	390	Cypress	B	* Corrected figure.	4261
2,930	8.0	13.8	22	35.4	4.8 at 99°F	3	4	Peripheral		107	107	Degonia & Clore	B	* Unitized 5-60. † Includes primary production since 5-60. ‡ Since 5-60.	1515
2,640	20.0	18.0	70	37.4	3.9 at 95°F	3	8	Peripheral	10	186	186	Sh Sd & Prod	F & B	* Formerly Breuer & Curran.	319
2,950	6.0	15.0	800			3	13		40	160	160	Prod	B	* Includes primary production since 11-56. † Estimated.	318
2,300	7.0	20.0				2	8			100	180	Prod	B	* Includes primary production since 4-58. † Estimated.	328
2,600	7.0	19.0								150					
2,850	4.0			37.0		5	9	Irr		180		Cypress & Tar Springs	B	* Controlled dump flood. † Includes primary production since 7-54. ‡ Operator adjusted.	1100
2,870	5.0														
2,771	9.2	17.0	50	35.0		2	1	Irr	10	10	40	Prod & Penn	B	* Includes 334.	309
2,845	10.0					1	1	Irr	10	5	10	Prod & Penn	B	* Included with 309.	334
2,530	7.0					1	3			40	40	Penn Sd	B	* As of 12-60.	1102
2,856	9.0					3	3	Perimeter	20	120	120	Cypress	B	* Injection estimated; dump flood. † Includes primary production 6-55 to 12-56.	1103
2,863	6.0														
2,580	15.0	15.4	17.3	38.0		1	2	5-Spot	10	20	40	Prod	B	Pilot flood. * Includes only water from Goldsby-Wilson lease.	312
2,600	12.0	19.0	60	38.0		6	7	Modified 5-Spot	20	70	130	Penn Sd & Prod	B	* Since 1-55.	313
2,600				37.0	4.6 at 100°F	11	21	Peripheral		202	350	Penn Sd & Prod	B	* Includes primary production since 3-55.	311
2,965	9.0	10.0		36.0		1	3	Modified 5-Spot	20	28	240	Cypress & Prod	B	* Includes primary production since 9-61. † Vacuum.	333
2,620	15.0	16.4	16	36.0		1	5			80	80	T.S., McCl., & Prod	B		315
2,880	6.0					4	7	Line		100	120	Prod	B	* Pressure is for one well; 3 wells are on vacuum.	329
2,800	10.0			39.7		5	18	Peripheral	20	720	720	Sh Gr & Prod	F & B	* Vacuum.	1106

TABLE 24 — ILLINOIS WATERFLOOD PROJECTS

Map no.	General information							Production and injection statistics							
	Field C = Consolidated	Operator	County	Project U = Unit	Date first inj.	"Formation"	Section, T-R	Water inj., M bbls		Oil prod., M bbls		Water Prod., M bbls		Av. inj. per foot per day bbls	Maximum well-head pressure psi
								Total 1961	Cumulative 12-31-61	Total 1961	Cumulative 12-31-61	Total 1961	Cumulative 12-31-62		
2218	St. Francisville E	J. E. Bauer	Lawrence	All States Life	11-57	Benoist	22-2N-11W	429	1,571	20.5	134	209	520	7.3	1,320
1222	St. James	H. Rosenthal	Fayette	Washburn 13*	3-54	Cypress	30-6N-3E		460†		147†		460†		
1912	Ste. Marie	J. B. Murvin	Jasper	Ste. Marie Pool U	11-61	Rosiclare	7-5N-11E	*	*	1.5†	2†				
2612	Salem C	T. M. Conrey	Marion	Sebastian	11-59	Benoist	21-1N-2E	2	6	.9	2			0.6	
2010	Salem C	Humble	Jefferson	Salem C - Aux Vases	8-60	Aux Vases	3,4,9-1S-2E	604	755	43.0	144*	561	677	4.0	50
2604	Salem C	Texaco	Marion	Rosiclare Sand U	4-50	Rosiclare	15-1N-2E	64	1,902	2.4	92	10	255	4.2	600
2605	Salem C	Texaco	Marion	Salem U	10-50	Benoist	1,2N-2E	30,296	293,377	3,856.8	30,079	16,070	123,869*	11.8	953
2606	Salem C	Texaco	Marion	Salem U	10-50	Devonian	1,2N-2E	1,835*	54,247	40.7	626	999	17,272†	10.9	*
2607	Salem C	Texaco	Marion	Salem U	4-51	McClosky	1,2N-2E	23,363	142,207	1,839.8	8,889	13,176	53,699*	20.4	954
2608	Salem C	Texaco	Marion	Salem U	10-50	Aux Vases	1,2N-2E	14,426	72,403	3,064.7	6,921	5,238	15,738*	11.8	948
1306	Sesser C	W. I. Lewis	Franklin	Sesser U	8-58	Renault	16,17,19,20-5S-2E	237	690	39.0	107	84*	144*	23.0	540
410	Shattuc	T. M. Conrey	Clinton	Gullick	12-59	Cypress	28-2N-1W	33	46	9.2	24			6.5	800
1416	Shawneetown N	Sun	Gallatin	L. Miller	11-59	Aux Vases	7-9S-10E	57	129	13.0	20	25	29	10.5	1,600
700	Siggins	Bell Bros	Cumberland	Queen*	9-50	Siggins	13-10N-10E	38	482†	12.4	178	55		0.4	220
705	Siggins	E. M. Farwell	Cumberland	McVey*	7-61	Penn	2-10N-10E								
702	Siggins	Forest	Cumberland	Siggins	6-42	Siggins	7-10N-11E; 11,12,13,14-10N-10E	3,809	61,934*	427.2	9,993*			0.7	200
215	Siggins	General Operations	Clark & Cumberland	Siggins	12-51	Casey	7-10N-14W; 7-10N-11E	186	2,553	18.6	250	164	992*	0.5	250
216	Siggins	Pure	Clark & Cumberland	Union Group	12-46	Siggins	18-10N-11E	909	18,322	45.9	2,508	1,282	15,769	0.8	250
2400	Staunton W	J. Waitukaitis	Macoupin	Dehne U	7-59	Penn	16-7N-7W	45	63	0	0	0	2	15.0	400
3800	Stewardson	W. L. Belden	Shelby		9-59	A.V. & Rosi.	27-10N-5E	108	239	0.2	4			14.8	500
4296	Storms C	NAP Co.	White	McQueen	6-60	Degonia Clore	32-5S-10E	455	615	78.9	120	279	339	11.5	1,400
4263	Storms C	Sinclair	White	Storms Pool U	3-56	Waltersburg	2,11,12,13,14,15,22,23,24-6S-9E	12,156	37,281	336.6	829	7,506	14,874	29.2	680
4295	Storms C	Tamarack	White	Hanna	8-60	Clore	32-5S-10E	62	93	53.1	62			8.5	1,340
4327	Storms C	Tamarack	White	Calvert	8-60	Clore	32-5S-10E	73*	73*	1.2*†	1*†			20.0	1,340
3413	Stringtown	Skelly	Richland	Peter Von Alman	12-53	McClosky	31-5N-14W	71	251	0	40*	1	238	16.2	0
3100	Tamaroa S	Illinois Lease Operating	Perry	Tamaroa Field	12-61	Cypress	14,23-4S-1W	23	23	0.6*	1*	6	6	17.0	750
1302	Thompsonville E	Humble	Franklin	E. Thompsonville	7-54	Aux Vases	12-7S-2E	150	1,167	4.4	126	126	791	7.6	300
1303	Thompsonville N	Humble	Franklin	N. Thompsonville U	10-55	Cyp. & A.V.	3,9,10-7S-4E	132	2,155	9.1	361	95	574	2.9	1,300
1304	Thompsonville N	J. & W.	Franklin	N. Thompsonville U	1-56	Aux Vases	3,9,10-7S-4E	190	1,614	6.8	357	57	353	18.6	1,100
1305	Thompsonville N	J. & W.	Franklin	Thompsonville U	3-54	Aux Vases	10,15-7S-4E	115	949*	33.3	125	19	79	3.3	1,550
2609	Tonti	Tamarack	Marion	Branch	12-53	Benoist McClosky	4-2N-2E	116	351*	16.9	87†		235†	8.1	0
4279	Trumbull C	E. Price	White		11-59	Aux Vases	19-5S-9E	14*	17*	1.2	1	14	31	1.6	
4336	Trumbull C	Texaco	White	Moore-Nibbling U	11-61	McClosky	7-5S-9E	*	*	1.0	1	3	3	*	*
1517	Walpole	Capitol Oil*	Hamilton	Walpole S U	11-60	Aux Vases	3-7S-6E	257	276	9.8†	11†	63	66	19.6	1,000
1518	Walpole	Texaco	Hamilton	Walpole U	12-60	Aux Vases	22,26,27,28,34,35-6S-6E	3,125	3,185	125.8	128	59	60	17.9	700
2610	Wamac	L. H. Jonas	Marion	Wamac*	5-54	Petro	30-1N-1E		32*		4*				
2611	Wamac	Wamac	Marion	Wamac U*	7-57	Petro	19,30-1N-1E		531†		35†		221†		
1301	W. Frankfort C	Shell	Franklin	W. Frankfort U	11-57	Tar Springs	18,19-7S-3E	667	2,820	30.7	514	544	1,215	9.7	635
1308	W. Frankfort C	Shell	Franklin	Orient U	9-59	Tar Springs	12-7S-2E	216	374	9.5	21	191	335	12.2	960
1307	W. Frankfort C	Sohio	Franklin	Horn-Diamond "B"	7-59	Ohara & McCl.	24,25-7S-2E	65	221	20.8	53*	19	43	12.8	†
1906	Willow Hill E	Pure	Jasper	Willow Hill U	8-57	McClosky	6-6N-11E	29	179	1.3	9	32	96	8.2	0
706	York	C. Keyser	Cumberland	Unit	6-61	Siggins	1-9N-10E	7	7	0.1	0	1	1	3.0	750
4137	Zenith N	Mobil	Wayne	Zenith N U	3-59	Rosiclare	21-2N-6E	35	79	7.0	19	4	11		

Reservoir statistics (average values)						Development as of 12-31-61						Injection water		Remarks	Map no.
Depth feet	Net pay thickness feet	Porosity percent	Permeability millidarcys	Oil gravity API	Oil viscosity centipoises	No. of wells		Injection pattern Mod = Modified Irr = Irregular	Acres per input well	Productive acres		Source Sd = Sand Gr = Gravel Prod = Produced Sh = Shallow	Type F = Fresh B = Brine		
						Inj.	Prod.			Under inj.	Total				
1,740	27.0	17.0	40	36.5	10.0 at 60°F	6	9	5-Spot	20	160	160	Prod	B		2218
1,595	20.0			34.0		3	9			95	95	Prod	B	* No data 1959-1961. † As of 1-59. ‡ Includes primary production.	1222
2,910	10.0			36.2		2	6			160	160	Cypress & Prod	B	* Dump flood; injection unknown. † Includes primary production since 11-61.	1912
1,927	8.0			37.0		1	1		10	10	10	Prod	B		2612
2,000	16.0	13.9	20	38.0	7.0 at 60°F	26	18	5-Spot	40	933	1,175	Prod	B	* Includes primary production since 8-60.	2010
2,093	14.0	11.5	43	36.5		3	1	Flank	10	100	100	Prod	B		2604
1,770	28.0	17.9	150	37.0	3.6 at 100°F	251	156	Peripheral & 5-Spot	20	8,247	8,247	Gr Bed & Prod	F & B	* Since 1-52.	2605
3,400	19.0	16.8	300	36.5	4.4 at 100°F	24	9	Peripheral		5,414	5,414	Gr, Sh Sd & Prod	F & B	* Dump flood. † Since 1-52.	2606
1,950	20.0	15.8	700	37.0	3.4 at 100°F	157	163	Peripheral		7,712	7,712	Gr Bed & Prod	F & B	* Since 1-52.	2607
1,825	26.0	16.3	28	37.0	3.9 at 100°F	129	115	Peripheral		4,881	4,881	Gr Bed & Prod	F & B	* Since 1-52.	2608
2,690	4.7					6	6	Line & Peripheral		220	220	Lake	F	* Estimated.	1306
1,285	7.0			35.8		2	4		10	50	50	Prod	B		410
2,750	15.0					1	2			30	30	Penn Sd & Prod	B		1416
320	27.0	18.5	73	36.0	12.0 at 63°F	9	15	5-Spot	5.3	80	80	Prod	B	Previously subjected to gas injection. * Formerly flood l. † Injection in jointly operated wells not included.	700
														* No data 1961.	705
400	32.0	17.5	56	36.6	8.0 at 60°F	493	475	5-Spot		1,800		Gr Beds & Prod	F & B	* Operator adjusted.	702
440	36.0	21.5	40.2	33.8	10.5 at 68°F	30	27	5-Spot	10	135	260	Lake & Prod	F & B	Previously subjected to gas injection. * Excluding 1956.	215
404	31.0	18.4	51	36.0	8.8 at 68°F	102	93	5-Spot	3.7	468	468	Prod	B		216
490	10.0			32.0		2	6		10	90	60		F & B		2400
1,950	20.0					1	15	5-Spot		160	160	Prod	B		3800
2,050	6.0					6	11	5-Spot	20	170	170	Penn Sd & Prod	B		4296
2,080	12.0														
2,230	20.0	19.0	250	37.0		57	55	5-Spot	10	730	1,796	Prod & Well	F & B		4263
2,100	10.0	18.0	150	33.0		2	5	Line		120	120	Sh Sd	B		4295
2,100	10.0	18.0	150			1	1	Line		20	100			† Includes primary production. * Since 1-61.	4327
3,002	12.0			36.0		1	2		10	80	80	Purchased	F & B	* No data 1958-1960.	3413
1,102	10.0	24.3	349	31.2	9.0	6	5	Peripheral	10	180	260	Lake & Prod	F & B	* Includes primary production since 12-61.	3100
3,200	18.0	21.1	98	38.0		3	3	5-Spot		30	117	Cypress & Prod	B		1302
3,075	25.0	22.0	170	37.5	5.8 at 60°F	5	3	5-Spot	20	80	164	Cypress & Prod	B		1303
3,060	14.0	21.0	115	39.0	3.2 at 90°F	2	2	Mod 5-Spot	20	80	261	Lake & Prod	F & B		1304
3,120	16.0	19.5	50	38.6	3.5 at 90°F	6	3	Mod Peripheral		176	185	Lake & Prod	F & B	* No injection 7-56 to 1-58; corrected figure.	1305
1,950	6.0			36.2		3	7	Line		30	120	Prod	B	* Non-metered prior to 4-59. † 3-57 to 12-61. ‡ Operator adjusted.	2609
2,122	7.0														
3,143	25.0	24.0	54	38.0		1	1						B	* Dump flood.	4279
3,283	5.0	12.8	136			1	3			150	160	Prod	B	* Dump flood; unknown.	4336
3,180	18.0	20.3	134			2	5	Peripheral		80	120	Penn Sd & Prod	B	* Formerly R. W. Portis. † Includes primary production since 11-60.	1517
3,000	15.4	18.3	106	36.2		31	46	Irr		1,615	11,615	Penn & Prod	B	Previously subjected to gas injection. * No data since 1957.	1518 2610
750	20.0	20.3	183	30.0	19.9 at 68°F	6	7	5-Spot		35	250	Purchased	F	Previously subjected to gas injection. * No data 1961. † As of 12-60.	2611
2,050	31.3	17.0	155	40.3		6	6	5-Spot	20	141	141	Cypress	B		1301
2,050	12.1			40.1		4	3	Peripheral		63	102	Cypress	B		1308
2,800	14.0	15.0	100	40.2		1	3			80	80	Purchased & Prod	F & B	* Includes primary production since 7-59. † Vacuum.	1307
2,634	9.5					1	1		30	30	100	Tar Springs & Prod	B		1906
556	11.0	17.8	80	33.8	11.5 at 66°F	1	2			40		Penn Sd	B		706
3,100				38.0		1	3				50	Cypress	B		4137

TABLE 25 - ILLINOIS PRESSURE MAINTENANCE

Map no.	General information							Production and injection statistics							
	Field C = Consolidated	Operator	County	Project U = Unit	Date first inj.	"Formation"	Section, T-R	Water inj., M bbls		Oil prod., M bbls		Water Prod., M bbls		Av. inj. per day per foot bbls	Maximum well-head pressure psi
								Total 1961	Cumulative 12-31-61	Total 1961	Cumulative 12-31-61	Total 1961	Cumulative 12-31-62		
001	Beaver Creek	Conrey & Conrey	Bond	Wrone	7-53	Benoist	36-4N-3W	*	106	.8	22				
405	Beaver Creek S	Conrey & Conrey	Clinton	Kneier & Ragland	4-56	Benoist	12,13-3N-3W	82	217	7.5	37		27.9	900	
1013	Bone Gap C	V. R. Gallagher	Edwards	Bone Gap U	6-52	Waltersburg	18,1S-14W	63	1,001	19.9	402	63	1,001	8.6	500
407	Carlyle N	Conrey & Conrey	Clinton	Kreitemeyer	1955	Benoist	23-3N-3W	47	151*†	2.6	18†		18.4	375	
4264	Enfield	Ryan	White	S. Enfield U 1	1-55	Aux Vases	28,29,32-5S-8E	291	1,281	60.2	401	291	1,246	33.2	1,214
406	Germantown E	NAP Co.	Clinton	Germantown	9-56	Devonian	1-1N-4W; 36-2N-4W	175	2,021	74.6	455	163	2,041*	4.0	300
1223	Louden	Humble	Fayette	Louden Devonian	9-43	Devonian	8N-3E	8,895	170,885	302.6	18,009	7,522	151,159	193.4	200
4265	Maunie S C	NAP Co.	White	S. Clear Pond	6-57	Tar Springs	12-6S-10E	0	54	2.4	35	2	58		
3958	Mt. Carmel	T. W. George	Wabash	Dunkel-Johnson*	10-57	Cypress	32-1N-12W		186*		1*		1*		
3959	New Harmony C	T. W. George	Wabash	Keensburg U*	12-58	Cypress	9-2S-13W								
1414	Omaha	Humble	Gallatin	Omaha	10-44	Palestine	33-7S-8E; 4-8S-8E	341	2,504	60.7	2,768	243	2,130	54.9	400
2006	Salem C	Humble	Jefferson	Dix (R. & P.M.)	1-48	Bethel	3,4,9,10,15,16-1S-2E	1,078	10,075*	414.0	10,076*	757	6,595*	38.9	400
1312	Whittington W	Kewanee	Franklin	Plains	2-61	Renault	1,2,11,12,14-5S-2E	445	445	91.4	91	123	123	44.4	615

Reservoir statistics (average values)						Development as of 12-31-61						Injection water		Remarks	Map no.
Depth feet	Net pay thickness feet	Porosity percent	Permeability millidarcys	Oil gravity API	Oil viscosity centipoises	No. of wells		Injection pattern Mod = Modified Irr = Irregular	Acres per input well	Productive acres		Source Sd = Sand Gr = Gravel Prod = Produced Sh = Shallow	Type F = Fresh B = Brine		
						Inj.	Prod.			Under inj.	Total				
1,140	8.0	20.7	208	32.4		1	4	5-Spot	10	40	50	Prod	B	* Injection discontinued 1-61.	001
1,110	8.0			36.6		1	5	5-Spot	10	50	50	Prod	B		405
2,310	20.0	18.0	120	34.6	5.6 at 85°F	1	10			40	120	Prod	B		1013
1,142	7.0			35.2		1	2		10	20	20	Prod	B	* Injection estimated 1958-1959. † Since 1-57.	407
3,260	8.4	21.5	142	36.8	3.5 at 101°F	3	6			314	314	Prod	B		4264
2,300	60.0				3.5 at 101°F	2	12		20	40	300	River & Prod	F & B	* Estimated.	406
3,100	18.0	14.4	41	29.0	6.5 at 76°F	7	44	Peripheral		2,600	2,600	Prod	B		1223
2,200	12.0					3	2	Line	20	40	60	Prod	B		4265
						4	5	5-Spot		160		Well & Prod	F & B	* No data since 1959.	3958
														* Now carried as waterflood project.	3959
1,700	17.0	18.9	427	27.0	17.0 at 76°F	1	17	Flank		280	280	Prod	B		1414
1,950	19.0	16.7	129	39.0	4.0 at 87°F	4	57	Peripheral		2,078	2,078	T.S., Penn & Prod	B	* Operator adjusted.	2006
2,675	10.0	13.0	13			3	12	Irr	40	400	764	Penn Sd & Prod	B		1312

Map no.	General information								Production and injection statistics		
	Field C = Consolidated	Operator	County	Project U = Unit	Date first inj.	"Formation"	Date abd.	Section, T-R	Cumulative water injection	Cumulative secondary oil produced	Cumulative water production
4201	Albion C	Concho	White	N. Crossville U	10-52	Cypress	1959	26,27,34-35-3S-10E	3,620	313	1,270
4202	Albion C	Concho	White	N. Crossville U	10-52	Tar Springs	1959	26,27,34,35-3S-10E	868	58	69
1014	Albion C	Continental	Edwards	Stafford	5-43	McClosky	12-56	13-2S-10E	625	43*	637
1015	Albion C	First Natl. Pet. Trust	Edwards	Brown	4-52	Aux Vases	12-55	6-2S-11E	*		
3944	Allendale	Indiana Farm Bureau	Wabash	Woods	11-53	Biehl	6-57	20-1N-12W	638	45*	559†
3952	Allendale	L & M	Wabash	S. Price	1960	Biehl	11-54	19-1N-12W	887*	167*	348†
3904	Allendale	Tamarack	Wabash	Patton	1954	Cypress	1959	28-1N-12W	644*	90*	147*
4129	Barnhill	Wayne Development	Wayne	Walter	12-50	McClosky	1-55	26-2S-8E	144		119
4105	Barnhill	Willets & Paul	Wayne	Barnhill U	10-56	Ohara	12-59	27,28-2S-8E	*	†	†
4106	Barnhill	Willets & Paul	Wayne	Simpson U	9-57	Rosiclare	12-59	27-2S-8E	350*	†	†
666	Bellair	Wausau	Crawford	Grant	2-53	Robinson	1-61	13-8N-14W	1,343	161*	380
3942	Berryville C	Phillips	Wabash	Tarply	9-52	McClosky	2-53	2-1N-14W	35	0	103
3943	Berryville C	Phillips	Wabash	Townsend	2-52	McClosky	7-53	35-2N-14W	50	0	86
3912	Browns E	T. W. George	Wabash	Bellmont	1-51	Cypress	1957	1,2,11,12-2S-14W	3,009	905*	1,122
217	Casey	Calvan American	Clark	Shawver	8-53	Casey	7-54	23,24-10N-14W	49	2	
201	Casey	Forest	Clark	Casey	3-50	Casey	3-61	19-10N-14W	8,030	462	
4267	Centerville E	D. B. Lesh	White	Centerville E	6-54	Rosiclare	12-55	12-4S-9E	*	4	4†
4246	Centerville E	Sun	White	E. Centerville	10-50	Tar Springs	8-57	7-4S-10E	269	39	132
408	Centralia	Sohio	Clinton	Copple Town	11-51	Trenton	*	35-2N-1W	236	34	21
1900	Clay City C	Ashland	Jasper	Boos E	9-53	McClosky	5-60	2-6N-10E	333*	16	
3402	Clay City C	Ashland	Richland	Noble N	7-54	McClosky	3-60	35-4N-9E	318	8*	
4130	Clay City C	Gulf	Wayne	Winona	8-55	McClosky	10-56	12-1S-8E	25	0	0
3416	Clay City C	Ohio	Richland	Noble Coop U	8-54	McClosky	1960	8-3N-9E	2,776	307	3,018
301	Clay City C	Phillips	Clay	Minnie	7-53	Rosiclare	5-58	24-3N-7E	181	79	460
4132	Clay City C	Texaco	Wayne	E. Galligher	1-58	McClosky	7-59	2-2S-7E	32	0	0
4228	Concord C	Great Lakes Carbon	White	McClosky	6-53	Rosi. & McCl.	12-56	28-6S-10E	243*	5*	44
4205	Concord C	B. Kidd	White	Kerwin-Concord*	1-55	McClosky	11-58	21-6S-10E	342	12	77
4229	Concord C	Phillips	White	Dallas	8-53	Rosi. & McCl.	1-57	28-6S-10E	247	3	42
4120	Covington S	General American	Wayne	Heidinger-Vogel	11-57	McClosky	10-59	13-2S-6E	51	0	0
1501	Dale C	C. Pearson	Hamilton	N. Rural Hill U	2-52	Aux Vases	1958	5,6,7,8-6S-6E	3,372	293*	1,536*
3945	Friendsville N	Mobil	Wabash	J. L. Litherland	7-47	Biehl	9-57	1,12-1N-13W	623	142*	282
4124	Goldengate C	Cities Service	Wayne	Kletzker U	8-56	Aux Vases	9-58	4-3S-9E	102	1	10
4133	Goldengate C	Illinois Mid Continent	Wayne	A. E. Seiffert		Rosi. & McCl.	1961	25-2S-9E	*	*	*
4128	Goldengate C	Cities Service	Wayne	Goldengate	10-53	McClosky	8-57	28,32,33-2S-9E	926	7*	281
3601	Harco E	Sun	Saline	Harco W.F.P. U	7-59	Cypress	8-61	24,25,26-8S-5E	84	3	37
320	Ingraham	Humble	Clay	Ingraham	12-56	Rosiclare	4-61	4,9-4N-8E	2,568	261	1,549
1404	Inman W C	Phillips	Gallatin	Levert	5-57	Cypress	7-59	3-8S-9E	8	0	
208	Johnson N	Tidewater	Clark	Clark County 1	2-50	Casey	1960	2-9N-14W	2,418*	160*	1,572*
3915	Keensburg S	Vickery	Wabash	A. P. Garst	10-54	Cypress	9-59	27-2S-13W	297	27	
220C	Lawrence	Calvan American	Lawrence	Piper	12-53	Cypress	9-56	2,11-4N-13W	146*	6†	
2229	Lawrence	Calvan American	Lawrence	Waller	3-53	Cypress	11-55	5,6-2N-11W	828*	12	
2205	Lawrence	W. Duncan	Lawrence	L. C. David	8-56	Paint Creek	9-58	8-3N-11W	56	0	8
2230	Lawrence	Ree	Lawrence	Snyder	10-52	Cypress	1955	30-3N-11W	16*	1*	69*
2500	Livingston	W. H. Krohn	Madison		7-54	Penn	1958	17-6N-6W	77*	3*	
667	Main C	H. J. Adams	Crawford	H. J. Adams*		Robinson	1958	28-8N-12W	1,058		
614	Main C	General Operations	Crawford	Littlejohn	10-52	Robinson	1958	20-6N-12W	442*	28	153
618	Main C	G. Jackson	Crawford	Stanford	6-52	Robinson	8-61		76*	2*	16*

Reservoir statistics (average values)						Development as of 12-31-61						Injection water		Remarks	Map no.
Depth feet	Net pay thickness feet	Porosity percent	Permeability millidarcys	Oil gravity API	Oil viscosity centipoises	No. of wells		Injection pattern Mod = Modified Irr = Irregular	Acres per input well	Productive acres		Source Sd = Sand Gr = Gravel Prod = Produced Sh = Shallow	Type F = Fresh B = Brine		
						Inj.	Prod.			Under inj.	Total				
2,850	12.0	18.0		37.0		8	21	Perimeter	10	250	300	River & Prod	F & B		4201
2,460	6.0	18.0		37.0		4	5	5-Spot	10	100	100	River & Prod	F & B		4202
3,222	4.0	16.3	898	39.0		1	1			80	80	Prod	B	* Includes primary production to 12-56.	1014
3,005	21.0					1	1		10	30	20	Hardinsburg	B	* Dump flood.	1015
1,520	15.0			28.4	8.9 at 32°F	5	7		10	147	147	Prod	B	* Includes primary production to 12-56. † 1-55 to 7-57.	3944
1,520	2.0	18.0	450	33.0		1	3	Irr	10	40	40	Sh Sd	F	* As of 1-60. † 1-58 to 12-59.	3952
2,000	16.0			34.8		4	7	5-Spot	25	130	130	River & Prod	F & B	* Estimated.	3904
3,450	18.0					1	2		10	40	40	Cypress	B		4129
3,340	6.0	20.1	108	39.0		4	8	Mod Split Line		165	165	Well & Prod	B	* Included with 4106. † Included with 4104; only lime production abandoned.	4105
3,364	5.0			40.0	6.0 at 78°F	3	4							* Includes 4105. † Included with 4104; only lime production abandoned.	4106
950	16.0	17.2	125	39.0	8.0 at 70°F	15	11	5-Spot	4	70	100	Penn Sd & Prod	F & B	* Includes primary production since 2-53.	666
2,890	10.0					1	2			14	30	Tar Springs & Prod	B		3942
2,890	10.0					1	2			27	30	Tar Springs & Prod	B		3943
														* Includes primary production since 1-51.	3912
450	21.5	22.4	108	31.8	13.6 at 65°F	9	4	5-Spot	4.4	13	215	Sh Sd	F		217
450	10.0	17.4	173	31.9	16.6 at 70°F	73	69	5-Spot	4.4	280		Gr & Prod	F & B		201
3,366	7.0			43.0		1	1			20	20	Tar Springs	B	* Dump flood. † From 1-55 to 12-55.	4267
2,530	6.0			36.6		1	5	Flank		80		Tar Springs & Prod	B		4246
3,950	22.0	10.0		39.8	2.7	2	12		20	160	200	Devonian	B	* Pilot flood, reported as abandoned in 3-53.	408
2,645	8.0			40.0	3.2 at 75°F	3	3	Flank		40	80	River Gr & Prod	F & B	* Dump flood; injection shut down from 12-55 to 5-57	1900
3,000	5.0			38.0		1	1			20	40	Cypress	B	* Includes primary production from 7-54 to 12-57.	3402
3,115	8.0	12.0		40.1		1	1		12.5	13	50	Tar Springs	B		4130
2,500						4	7			150		Cypress & Prod	B		3416
2,990	30.0	14.0	2,000	39.0		1	1			20	20	Prod	B		301
3,255	6.0			38.0		1	1		40	40	80	Cypress & Prod	B		4132
2,980	22.0			37.5		3	8	Mod Peripheral		140	150	Gr Beds	F	* As of 1-55.	4228
3,003	16.0					1	3		10	30	40	Sh Sd	F	* Dump flood.	4205
2,960	30.0	15.0	50	36.0		1	3			40	60	Sh Sd & Prod	F & B		4229
3,316	4.0					1	1		40	80	80	Cypress	B		4120
3,125	14.7	23.9		39.0	2.3	11	16	5-Spot	20	310	325	Cypress	B	* Since 1-53.	1501
1,620				35.6		2	3	5-Spot	10	13	40	Sh Sd	F	* Includes primary production to 12-56.	3945
3,242	10.0	15.0	10	37.0		1	2	Irr	10	10	30	Cypress	B		4124
3,200						1	3	Irr				Cypress	B	* Dump flood; lease never responded to injection.	4133
3,308	8.0			34.0		2	8	Irr		159	210	Gr Beds	F	* Corrected figure.	4128
2,550	9.0					1	2		10	30	30	Penn Sd	B		3601
3,000	5.1	14.2	2,450	38.0	7.2	9	12	5-Spot	40	297	552	Penn Sd	B		320
2,560	6.0	18.0*	100*	35.0		1	1		10	10	20	Prod	B	* Estimated.	1404
425	26.1	20.6	415	33.9	10.7 at 70°F	16	51	5-Spot	4.4	81	252	Bridge Plant & Prod	F & B	Subjected to gas injection 1946-47. * As of 1-60.	208
2,403	15.0	20.6	134	37.5	4.6 at 91°F	1	1			60	60	Sh Gr	F		3915
1,520	25.0	20.8	33	38.6	3.5 at 86°F	4	8	5-Spot	10	13	144	Sh Sd	B	* As of 5-56. † As of 8-56.	2200
1,535	50.0	18.5	70	39.5	5.0 at 85°F	8	8	5-Spot	10	35	625	Gr Beds	B	* As of 6-55.	2229
1,600	6.0					1	1			20	10	River Gr	F		2205
1,580	25.0	21.2	125	38.6	4.1 at 85°F	1	2			10	230	Tar Springs	B	* As of 1-55.	2230
520	15.0			33.5		2	5				80	Benoist & Aux Vases	B	* Temporarily abandoned 10-54 to 5-55.	2500
1,000	22.0	18.5	98			5	4		10	160		Lake & Prod	F & B	* No data 1958-1959.	667
850	24.0	20.0	50	37.5	10.0 at 78°F	4	9	Irr	4.5	35	120	Creek & Prod	F & B	Previously subjected to gas injection. * Since 1-56. * As of 1-57.	614 618

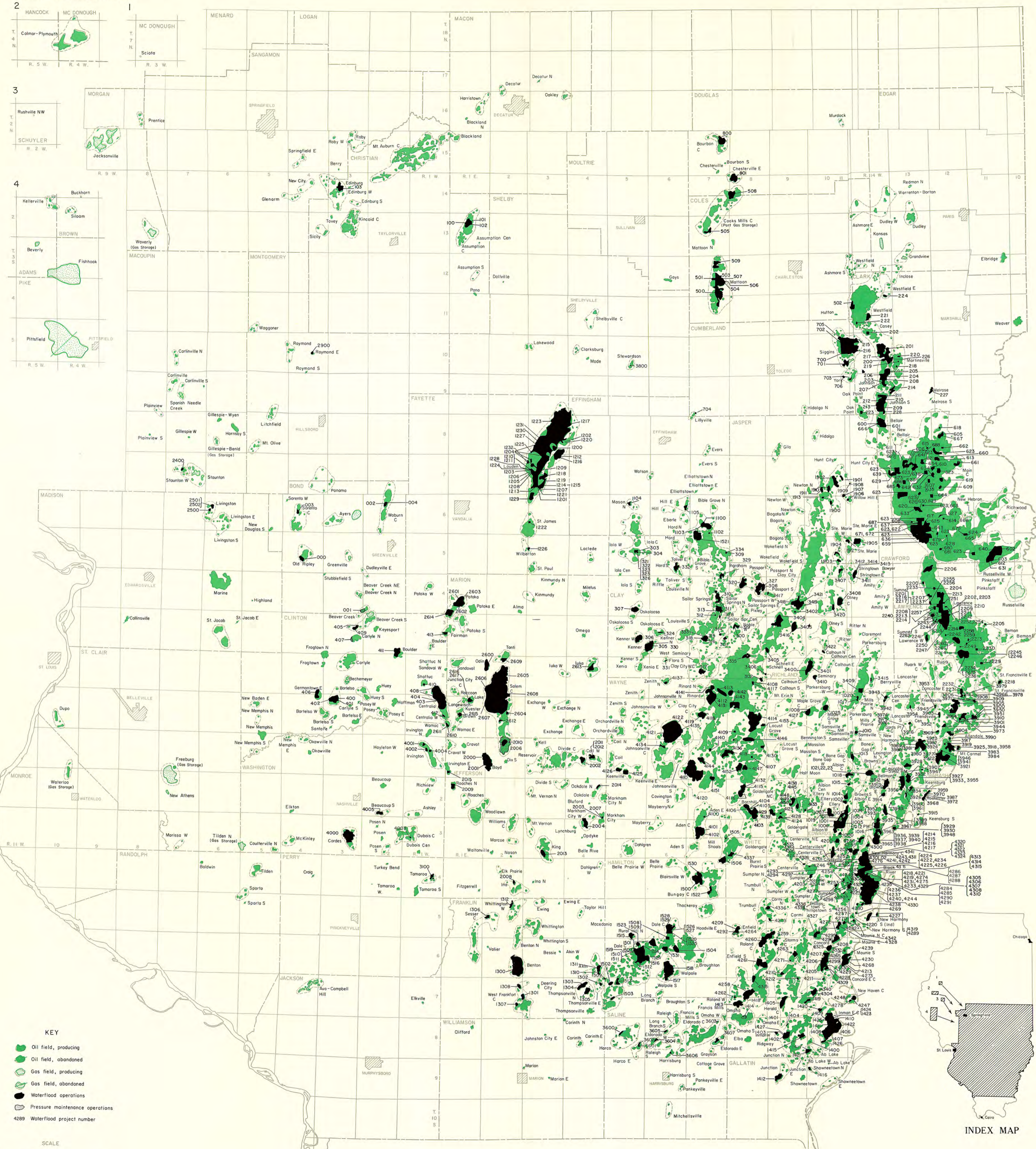
Map no.	General information								Production and injection statistics		
	Field C = Consolidated	Operator	County	Project U = Unit	Date first inj.	"Formation"	Date abd.	Section, T-R	Cumulative water injection	Cumulative secondary oil produced	Cumulative water production
662	Main C	Petroleum Products	Crawford		9-51	Robinson	12-56	29,32-8N-12W	445*		
663	Main C	Ree	Crawford	Meserve	11-53	Robinson	5-55	11-6N-13W	251	1	39
627	Main C	Shakespeare	Crawford	McIntosh U	7-54	Robinson	1-59	17,18,19,20-6N-12W	396	18	241*
628	Main C	Shakespeare	Crawford	Montgomery U	5-54	Robinson	5-58	32,33-6N-12W; 4-5N-12W	516	18	177
661	Main C	Skiles	Crawford	Correll-Gurley	7-51	Robinson	9-55	10-7N-12W	1,207	30	227
664	Main C	Skiles	Crawford	Walter-Community	12-51	Robinson	12-52	1-6N-13W; 36-7N-13W	26	0	29
665	Main C	Skiles	Crawford	Weger	11-57	Robinson	7-56	18,19-5N-11W; 13,24-5N-12W	777	9	109
679	Main C	Wausau	Crawford	Highsmith		Robinson	1957	31-6N-12W			
2003	Markham City	Tidewater	Jefferson	Newton Investment	8-55	McClosky	1958	1-3S-4E	*	2†	7‡
218	Martinsville	J. B. Buchman	Clark		10-52	Carper	1954	31-10N-13W	283*	0	5*
219	Martinsville	Mobil	Clark	Carper	1-51	Carper	2-55	30-10N-13W	1,111	10	10
220	Martinsville	Mobil	Clark	Casey	8-50	Casey	2-53	19-10N-13W	872	2	34
4230	Maunie S C	Mobil	White	Tar Springs U	8-47	Tar Springs	12-57	24-25-6S-10E; 19-6S-11E	4,748*	792†	2,049
4239	Maunie S C	Mobil	White	Maunie Coop	11-55	Tar Springs		24-6S-10E	180	11	141
4268	Maunie S C	Mobil	White	Tar Springs U 2	11-49	Tar Springs	1955	24-6S-10E; 19-6S-11E	639	60	209
3941	Mt. Carmel	First Natl. Pet. Trust	Wabash	S. Courter	4-53	Cypress	12-56	7-1S-12W	259	28	10*
3946	Mt. Carmel	First Natl. Pet. Trust	Wabash	S. Courter	2-50	Biehl	12-56	7-1S-12W	364	69	148*
3917	Mt. Carmel	Tamarack	Wabash	G. Dunkel	6-52	Biehl	1958	5-1S-12W	198*	28*†	32*
3907	New Harmony C	T. W. George	Wabash	E. Maud	7-52	Bethel	1958	32,33-1S-13W	98*†	55*†	
3947	New Harmony C	T. W. George	Wabash	E. Maud	1-53	Cypress	1958	32,33-1S-13W	31*	55*†	
4219	New Harmony C	Calstar	White	Ford "B"*	3-53	Bethel	4-60	21-4S-14W	1,113†	104†	
3955	New Harmony C	Indiana Farm Bureau	Wabash	Landis-Goins	3-57	Cypress	1960	3-2S-13W	62*	11*†	78**
4217	New Harmony C	J. Simpkins	White	*	9-56	McClosky	12-59	5-3S-14W; 32,33-4S-14W	762		
4222	New Harmony C	Skiles	White	Smith-Davenport	5-55	Cypress	10-57	15-4S-14W	147	4	2
4287	New Harmony C	Skiles	White	Calvin Griffin C	9-59	Cypress	6-61	8-4S-14W	1	0	27
4223	New Harmony C	Sun	White	Greathouse	8-47	McClosky	1-57	33-4S-14W; 4-5S-14W	1,088	129	227
4234	New Harmony C	Sun	White	Ford "B"*	3-53	Bethel	6-58	21-4S-14W	495	50	199
4269	New Harmony C	Sun	White	Ford "A"	3-48	McClosky	7-52	18-5S-14W	58	13	1
3415	Parkersburg C	Calvert	Richland	Parkersburg	1-55	McClosky	1956	16,21-2N-14W	107*	0	43*
4245	Phillipstown C	C. E. Brehm	White	Phillipstown U "A"	6-52	Penn	5-57	30-4S-11E; 19,30-4S-14W	311	68*	
4252	Phillipstown C	Mobil	White	N. Calvin	5-51	Biehl	1960	30,31-3S-11E	1,156	426	499
4232	Phillipstown C	Skiles	White	L. O. Cleveland	11-55	Tar Springs	12-56	36-4S-10E	48	0	0
4256	Phillipstown C	Sun	White	Phillipstown U	12-55	Clore	6-60	6-5S-11E	256	110	58
4270	Phillipstown C	Sun	White	Phillipstown	1-53	Tar Springs	3-54	6-5S-11E	58	0	251
4262	Roland C	T. W. George	White & Gallatin	Pankey-Morehead U	10-56	Cypress	1958	17,20-7S-8E		0	
310	Sailor Springs C	Gulf	Clay	R. Keck	9-57	Cypress	3-60	26-4N-7E	65	11*	37
314	Sailor Springs C	W. C. McBride	Clay	Bothwell	8-56	Cypress	1960	14-3N-7E	108*	6*	18*†

Reservoir statistics (average values)						Development as of 12-31-61						Injection water		Remarks	Map no.
Depth feet	Net pay thickness feet	Porosity percent	Permeability millidarcys	Oil gravity API	Oil viscosity centipoises	No. of wells		Injection pattern Mod = Modified Irr = Irregular	Acres per input well	Productive acres		Source Sd = Sand Gr = Gravel Prod = Produced Sh = Shallow	Type F = Fresh B = Brine		
						Inj.	Prod.			Under inj.	Total				
1,000	15.0	20.0	75	37.5	7.3 at 76°F	4	2	5-Spot	10	10	700	Sh Sd & Prod	F	* As of 1-55.	662
950	22.7	21.9	89		10.0 at 79°F	4	4	5-Spot	10		525	Penn Sd	B		663
900	12.0			32.6	11.0 at 75°F	4	8	Peripheral	4.7	39	88	Penn Sd	B	Previously subjected to gas injection. * Estimated.	627
915	26.0	22.6	150	28.3	23.0 at 71°F	6	6	Mod 5-Spot	6-10	52	85	Robinson	F & B		628
1,035	20.0	22.2	100	33.0	13.5	18	17	5-Spot	10	180		Creek & Penn Sd	F & B		661
950	10.0	20.1	93	36.0	12.5	5	6	5-Spot	10	40		Penn Sd	B		664
1,010	15.0					9	11	5-Spot	10	90	110	Creek & Prod	F & B		665
3,080	6.0					1	1		40	40	40	Cypress	B	* Dump flood. † Estimated; includes primary production since 1-56. ‡ As of 1-57.	2003
1,346	40.0	16.0	11	30.0		2	6	5-Spot	20	40	40	Sh Sd	F	* As of 1-54.	218
1,334						4	1	5-Spot	10	10	50	Gr Bed	F		219
464						8	3	5-Spot	10	23	110	Gr Bed	F		220
2,270				37.3	4.6 at 89°F	2	4	5-Spot	20	138	230	Gr & Prod	F & B	* Corrected figure. † Includes primary production to 12-56.	4230
2,275						1	3	Irr		18	80	Gr & Prod	F & B		4239
2,275						3	2	5-Spot	20	50	50	Gr Bed	F & B		4268
2,050	12.0					1	4		10	50	50	Well	F	* As of 1-56.	3941
1,375	16.0			40.2	4.7 at 70°F	1†	2		10	30	30	Well & Prod	F & B	* As of 1-56. † During 1956 injection well used as a straight disposal well.	3946
1,500	6.7	15.3	310	36.6	3.9 at 104°F	2	3		28.9	87	68	Sh Sd	F	* Excluding 1957-58. † Includes primary production since 6-52.	3917
2,500	15.0	17.0	57	36.1	5.1 at 94°F									* As of 12-56. † Includes primary production since 7-52.	3907
2,400	12.0													* As of 12-56. † Includes primary production since 1-55.	3947
2,695	12.0			37.5	3.7 at 96°F	2	2		20	20	35	Gr Bed	F	* Cooperative pilot flood with Sun. † As of 1-60.	4219
2,340				36.0		1	2			20		Prod	B	* As of 1-60. † Includes primary production since 3-57. ‡ Since 1-58.	3955
2,900	9.4			34.5	4.2 at 98°F	4		5-Spot	20	85	302	River & Gr Bed	F	* Non-Bump-Crawford.	4217
2,630	10.0	17.7	145			1	2	Irr		30	30	Tar Springs	B		4222
2,252	10.0					1	2			20	30	Sh Gr & Prod	F & B		4287
2,900	5.0			36.9		1	1			50		Gr Bed	F		4223
2,696	12.0	13.0†	30†	32.5		1	5			20	80	Gr Bed	F	* Cooperative flood with Calstar. † Estimated.	4234
2,900	7.0			38.0		1	1			40	40	Gr Bed	F		4269
3,062	10.0					2	7		20	160	160	McClosky	B	* As of 1-56.	3415
1,912	23.0	13.0	36	38.0	4.5 at 84°F	1	5	Irr		90	90	Penn Sd	B	* Includes primary production to 12-56.	4245
1,830				32.8	11.0 at 80°F	2	7	5-Spot	20	53	120	Sh Sd & Prod	F & B		4252
2,300	12.0					1	2	Irr		30	30		B		4232
2,000	10.0					1	5			50	135	Prod	B		4256
2,248	10.0			34.5		1*	9			10	10	Prod	B	* Abandoned after unsuccessful input well fracture treatment.	4270
2,260	20.0	14.0	16			2	2	5-Spot	20	40	40	Tar Springs	B		4262
2,602	10.0					1	1			10	20	Prod	B	* Includes primary production since 10-57.	310
2,650	10.0	19.0	20	36.0		1	1		10	20	20	Prod	B	* As of 1-60. † Since 6-59.	314

Map no.	General information								Production and injection statistics		
	Field C = Consolidated	Operator	County	Project U = Unit	Date first inj.	"Formation"	Date abd.	Section, T-R	Cumulative water injection	Cumulative secondary oil produced	Cumulative water production
316	Sailor Springs C	Shulman Bros	Clay	Neff	1-57	McClosky	1960	16-3N-7E	114*†	3*	1‡
1905	Ste. Marie	J. R. Randolph	Jasper	Ste. Marie	10-48	McClosky	12-60	5,6,7,8-5N-14W	1,955*	195*†	63**
1010	Samsville	Ashland	Edwards	W. Salem	9-54	Bethel	3-59	30-1N-14W	319	7*	
3410	Seminary	R. P. Johnson	Richland	Seminary	2-54	McClosky	1958	17-2N-10E	89*	25	290†
701	Siggins	C. R. Cochonour	Cumberland	Vevay Park	1-50	Siggins	1956	25-10N-14W	225	2	103
003	Sorento C	J. Simpkins	Bond			Devonian	1958	17-6N-4W			
317	Stanford S	Gulf	Clay	S. Stanford U	5-54	Aux Vases	2-60*	2,9,16,17-2N-7E	2,805*	370	987
4271	Storms C	Mabee	White	Storms	7-51	Waltersburg	6-53	22-6S-9E	90	0	
3411	Stringtown	N. C. Davies	Richland	Stringtown	12-53	McClosky	*	31-5N-14W	257†	19†‡	289
3412	Stringtown	Helmerich & Payne	Richland	Stringtown	10-54	McClosky	1958	31-5N-14W	171	5	57
3414	Stringtown	Murvin & Steber	Richland			Aux Vases	10-58	31-5N-14W			
222	Westfield	Forest	Clark	Parker	6-50	"Gas Sand"	12-56	30-11N-14W	663	34	
502	Westfield	General Operations	Coles & Clark	Johnson	6-51	"Gas Sand"	1958	7,18,19-11N-11E; 18-11N-14W	205	13	75*
221	Westfield	Ree	Clark	Hawkins	8-51	"Gas Sand"	1954	20,21-11N-14W			
1226	Wilberton	W. L. Belden	Fayette			Devonian	12-60	18-5N-3E	2	0	
1907	Willow Hill E	M. M. Spickler	Jasper		6-52	McClosky	12-56	36-7N-10E	*	2†	
002	Woburn C	Arrow	Bond		9-51	Benoist	1958	10-6N-2W	194*	11*†	194*†
004	Woburn C	E. E. Jenneman	Bond	Spindler		Benoist	*				
703	York	Trans-Southern	Cumberland	York	10-50	Casey	1959	6-9N-11E	611	15	240

PROJECTS REPORTED ABANDONED

Reservoir statistics (average values)						Development as of 12-31-61					Injection water		Remarks	Map no.	
Depth feet	Net pay thickness feet	Porosity percent	Permeability millidarcys	Oil gravity API	Oil viscosity centipoises	No. of wells		Injection pattern Mod = Modified Irr = Irregular	Acres per input well	Productive acres		Source Sd = Sand Gr = Gravel Prod = Produced Sh = Shallow			Type F = Fresh B = Brine
						Inj.	Prod.			Under inj.	Total				
3,000	5.0			36.0		1	1		20	40	40	Tar Springs	B	* As of 1-60. † Corrected figure. ‡ Excludes 1959.	316
2,860	7.0					1	15				500	Cypress	B	* Estimated; dump flood. † Excluding 1956. ‡ Since 1-56.	1905
2,930	5.0					1	1			20	35	Prod	B	* Includes primary production since 9-54.	1010
3,000	8.0			36.0		2	4			173	173	Cypress	B	* Estimated; dump flood. † Excluding 4-57 to 12-57.	3410
600	16.0	20.3	349	30.1		2	4	5-Spot	4.4	10		Surface & Prod	F & B		701
															003
2,975	11.8	19.8	97	38.8	3.7	9	7	5-Spot	20	125	170	Penn & Prod	B	* Injection ceased 12-58.	317
2,241	15.0					1	2			40	40	Penn Sd	B		4271
3,000	10.0	18.0				2	3			80	80			* Inactive during 1960, probably will be abandoned. † As of 1-59. ‡ Includes primary production 12-53 to 1-59.	3411
3,026	7.0			38.0		2	2		10	92	50	Cypress & Prod	B		3412
															3414
270	25.0	17.9	153	28.1	54.0 at 60°F	9	12	5-Spot	2.5	20		Gr Bed	F	Previously subjected to gas injection	222
320	35.0	21.5	86	29.0		30	14	5-Spot	4.4	50	640	Lake & Prod	F & B	* Excludes 1956.	502
290	30	22.0	120	30.0	28.0 at 62°F	15	8	5-Spot	1.4	40	360	Devonian & Prod	F & B		221
3,400	15.0					1	3			120	120				1226
2,615	10.0					1	1			20	20	Prod	B	* Dump flood, not in operation during 1956. † As of 1-55.	1907
1,006	14.0					1	4			20	20	Prod	B	* No data after 1955. † Estimated.	002
														* Temporarily abandoned.	004
590	10.0	21.9	231	30.3	10.0 at 75°F	3	7	Line Dr	4.4	15	125	Prod	B		703



OIL AND GAS FIELDS IN ILLINOIS

WATERFLOOD AND PRESSURE MAINTENANCE OPERATIONS DURING 1961

JANUARY 1, 1962

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