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REPORT OF INVESTIGATIONS NO. 37

1958  
OIL AND GAS DEVELOPMENTS  
IN OHIO

By  
George G. Shearrow  
and  
Theodore A. DeBrosse

COLUMBUS  
1959

STATE OF OHIO

Michael V. DiSalle  
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DEPARTMENT OF NATURAL RESOURCES

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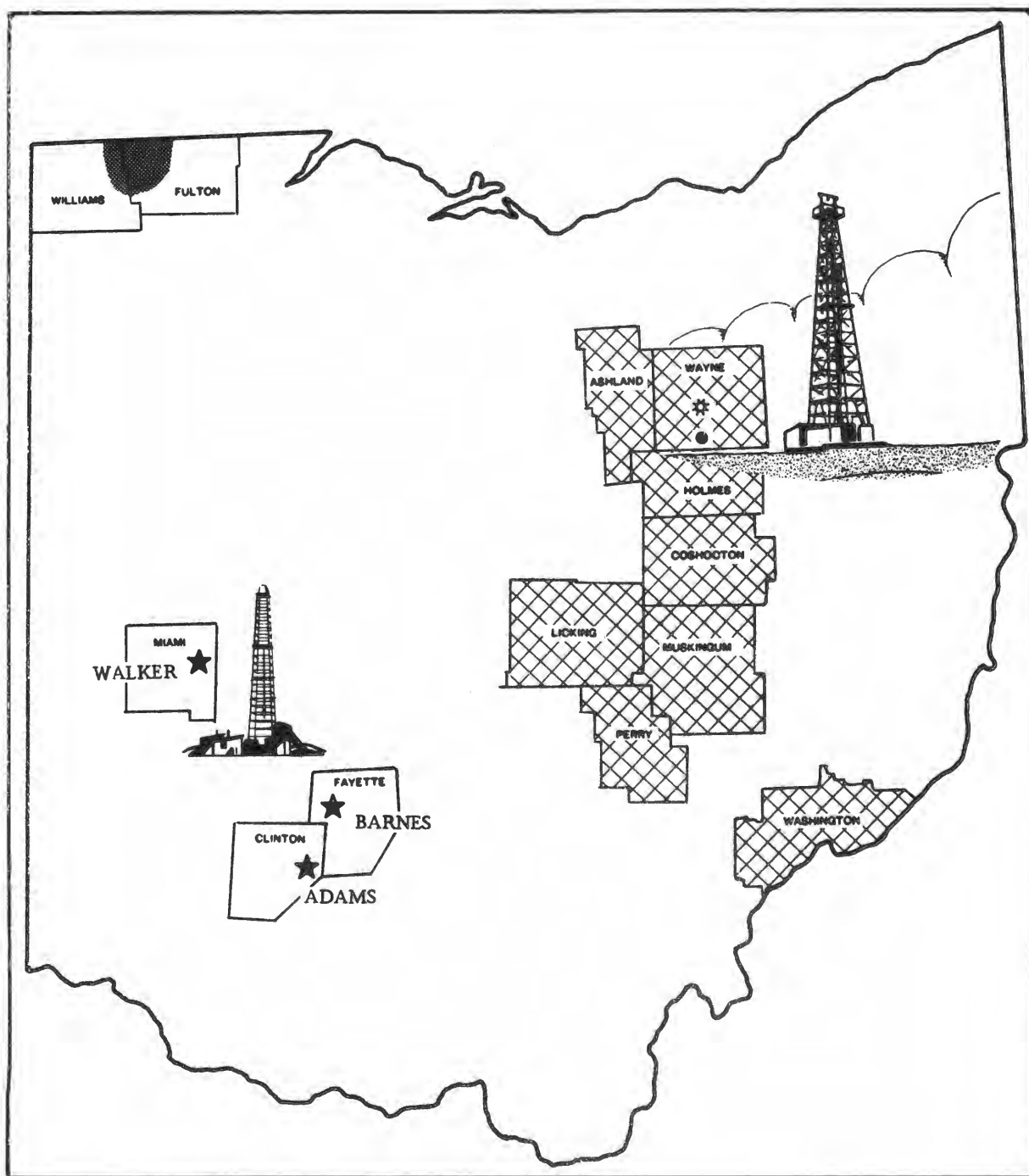
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# 1958 HIGHLIGHTS



-  50 or More Wells Drilled in 1958
-  20 Million Cubic Feet Gas Well
-  1200 Barrel Oil Well
-  Precambrian Test Wells
-  Extensive Leasing Play

# SUMMARY OF OIL AND GAS WELL DRILLING ACTIVITIES IN OHIO DURING 1958

## Production

The steady increase in crude production since 1951 along with the fact that Ohio has no prorationing has aroused the interests of many operators from the central and western states. Majors and independents are taking another look at the Appalachian area. Although most of the increase in oil is due to the development of the Moorland Pool in Wayne County, which produces from the Clinton sand, it is highly probable that the deeper horizons will be explored as potential producers.

The one million-barrel increase brought the year's total oil production to 6,525,000 barrels. The gas production totaled 33,875,000,000 cubic feet, an increase of 1,614,000,000 cubic feet.

Again, over half of the wells bottomed in the Clinton sands of the Lower Silurian. The ratio of successful completions in the Clinton is 82.1 percent. The successful ratio of all wells is 73 percent.

Oil and Gas Production and Values <sup>2</sup>

	Buckeye	Zanesville	Corning	Cleveland- Chatham	Lima	Total
P/L Runs	888,041	126,681	4,458,416	244,016	none	5,717,154
Trucked	<u>416,861</u>	<u>none</u>	<u>280,745</u>	<u>37,083</u>	<u>72,672</u>	<u>807,361</u>
Totals	1,304,902	126,681	4,739,161	281,099	72,672	6,524,515
Avg. B/D	3,575	347	12,984	770	199	17,875
Avg. Price	\$3.48	\$2.75	\$2.73	\$2.72	\$2.61	
Value	\$4,541,059	\$348,373	\$12,937,910	\$764,589	\$189,674	\$18,781,605

The foregoing table gives you a quick picture of the value of Ohio oil production in 1958.

Compared with 1957, these figures are interesting. Production of crude oil increased 968,683 barrels, but the value increased only \$1,240,358. Last year it was estimated that there would be a loss of one million dollars in 1958 due to price cuts. This figure was actually \$1,720,433, \$809,039 being in Buckeye-Pennsylvania grade. This hurts the industry severely and it continues to hurt.

Twelve percent of Ohio crude was transported by trucks. More Pennsylvania grade was handled by truck, less Zanesville traveled by truck, and Corning pipeline runs increased considerably, so the percentage remained the same as in 1957.

A volume of 33,875,000,000 cubic feet of gas was produced in 1958, only 1,614,000,000 cubic feet more than in 1957. Value is estimated at \$7,791,250, which is \$371,220 over the

<sup>1</sup>

The writers wish to acknowledge and thank the many contributors who made the 1958 report possible. The following organizations and individuals have been especially helpful: Mr. Ira M. Korst, Ohio Oil and Gas Association; Mr. Allen Johnson, Ohio Fuel Gas Company; and Mr. J. C. Wilson, Ohio Division of Mines. Geological Survey personnel who have aided in this compilation include: M. Lewis, M. Klein, H. Flint, D. Hyde, and R. J. Bernhagen, Division Chief.

<sup>2</sup>

Modified from Ira M. Korst, Executive Secretary, Ohio Oil and Gas Association.

estimated value in 1957. Total value of oil and gas production amounted to \$26,572,855, which is \$1,934,188 more than the 1957 value. The average price of gas was 23 cents per mcf--up 1 cent from the preceding year.

The foregoing figures should certainly provide ammunition for arguments with critics of the oil industry. It also indicates that imports must be rolled back--possibly more than called for in the recently released Mandatory Plan if the industry is to survive.

### Development

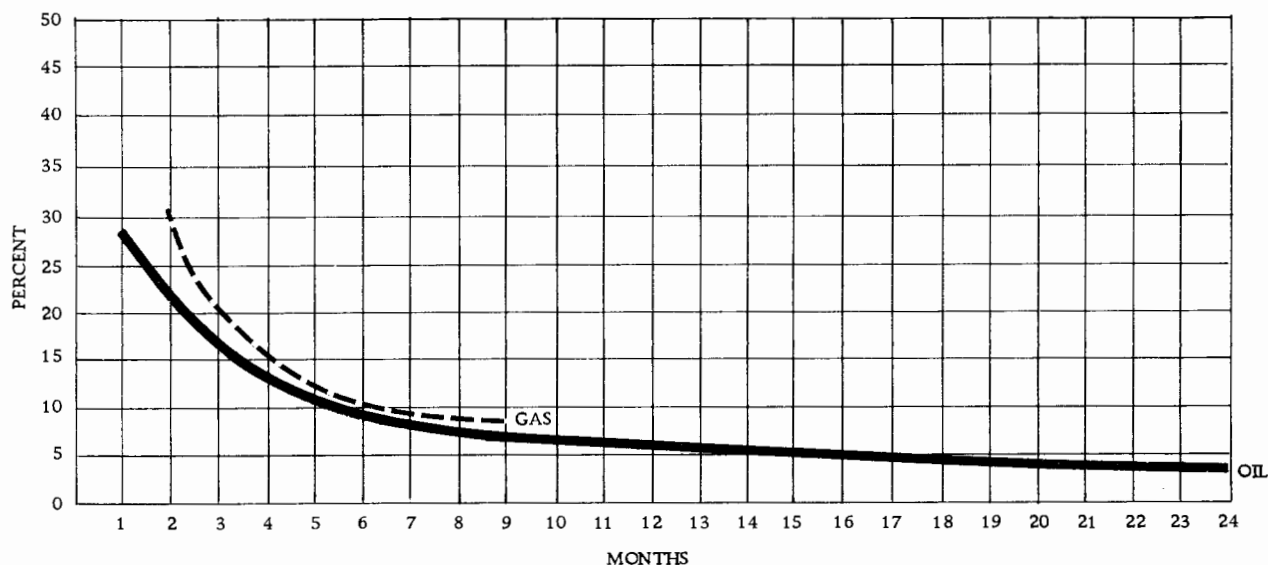
Coshocton County, having had 156 wells drilled within its boundaries, was the most active area. Following closely behind was Wayne County with 149. Both Ashland and Perry Counties each had 84 wells drilled, but Berea drilling dominated the activity over the Clinton in Ashland County. Licking County had 83 wells drilled and Holmes had 82. The Clinton sand, with the one exception, Ashland County, is the main objective in this six-county area.

Of a total of 1,168 wells drilled, 260 were gas, 238 were oil, 354 were combination, and 316 were dry holes. Total initial production was 409,235,000 cubic feet of gas and 51,415 barrels of oil with 2,779,243 feet of hole drilled. The average depth per well was 2,379 feet.

The Clinton sand, the major producing horizon in Ohio, had 642 tests drilled, of these 112 were gas, 98 were oil, 317 were combination, and 115 were dry. The footage drilled was 2,165,787 feet, averaging 3,374 feet per hole. The total initial production reported was 50,019 barrels of oil and 315,600,000 cubic feet of gas, averaging 95 barrels of oil and 599,000 cubic feet of gas per producing well.

These high initials are misleading and have caused disappointment to the uninformed. The production decline curve for the Clinton is sharp for the first six months as shown by the accompanying chart. According to Bendler and Lytton\*, the average daily gas production for the first

#### Percentage Decline of the Initial Production After Fracture \*



\* Compiled from John C. Wright, 1959, "Production Curves on Fractured Clinton Oil Wells," Ohio Geol. Survey Inf. Circ. 23, p. 14-19; E. P. Bendler and C. W. Lytton, 1959, "Results of Hydraulic Fracturing of Gas Wells in Ohio," Ohio Oil and Gas Association Winter Meeting Papers, p. 10-21.

## Totals for all Types of Wells Completed for 1958

	Number of Wells	Production		Number of Feet Drilled
		Gas (mcf)	Oil (bbl)	
<b>GAS</b>				
New	260	261,425		612,505
Drilled Deeper	6	5,218		3,446
<b>OIL</b>				
New	238		11,924	435,881
Drilled Deeper	1		1	587
<b>COMBINATION</b>				
New	354	147,810	39,491	1,112,979
Drilled Deeper	4	1,129	410	1,762
<b>DRY</b>				
New	316	-	-	617,878
Drilled Deeper	8	-	-	3,817
<b>ALL TYPES</b>				
New	1,168	409,235	51,415	2,779,243
Drilled Deeper	19	6,347	411	9,612
Gas Storage	75	-	-	174,569
Water Flood	24	-	-	13,176
<b>TOTAL</b>	<b>1,286</b>	<b>415,582</b>	<b>51,826</b>	<b>2,976,600</b>

month is approximately 46 percent of the first 24 hours delivery after fracture. Wright\* indicates the first month's average daily oil production is 28 percent of the first 24-hour production after fracture. The gas production decline curve was compiled from 11 wells and the oil production decline curve was a compilation of 39 wells. It is noted that both curves approach 10 percent of the initial production in six months and then decline at a lesser rate. Although figures were not available on the gas wells after nine months, it appears that the gas curve flattens out at a slightly higher percentage than the oil.

Twenty percent of the wells completed this year bottomed in the First Berea sand. Of the total of 231 wells, 39 were gas, 96 were oil, 16 were combination, and 80 were dry. The initial production found was 637 barrels of oil and 11,285,000 cubic feet of gas, the average being 4 barrels of oil and 75,000 cubic feet of gas per productive well.

Six wells completed in 1958 had initial open flows over 5,000,000 cubic feet of gas. The Clinton sand wells are Natol's Spring No. 1, located in section 34, Newton Township, Muskingum County, 5,000,000 cubic feet after fracture; Shulman Brothers' Paxton No. 1, located in section 4, Madison Township, Perry County, 5,440,000 cubic feet after fracture; Biller and Flanigan Brothers' Paziorko No. 1, located in lot 3, Monroe Township, Ashtabula County, 6,973,000 cubic feet after fracture; McConnell's Walker No. 1, located in lot 7, Monroe Township, Ashtabula County, 7,700,000 cubic feet after fracture; and Ditch and Hanna's Still No. 2, located in section 4, Monroe Township, Coshocton County, 10,000,000 cubic feet of gas and 200 barrels of oil after fracture. The largest gas well was Ohio Fuel's Dial No. 1, located in section 3, Franklin Township, Wayne County. This well, completed in the "Newburg," gauged 20,120,000 cubic feet of gas natural. The two pays were reported at 3,004-3,028 feet and 3,052-3,070 feet in Silurian dolomite.

The six largest oil wells reported were all located in Franklin Township, Wayne County, in the Moorland Pool, and are producing from the Clinton sand. The wells are as follows:

\* Op. cit.

Preston's Baker No. 5, located in section 3, 700 barrels of oil and 100,000 cubic feet of gas after fracture; Smith Petroleum's Hostetler No. 7, located in section 22, 792 barrels of oil and 979,000 cubic feet of gas after fracture; Vanson Production's Miller No. 6, located in section 21, 950 barrels of oil after fracture; Smith Petroleum's Hostetler No. 4, located in section 22, 936 barrels of oil and 979,000 cubic feet of gas after fracture; and the Hostetler No. 9, located in section 22, 1,134 barrels of oil and 929,000 cubic feet of gas after fracture. C. A. Smith's Kaufman (White Community No. 1) located in section 10 was the largest oil well reported. This well, producing from the Clinton sand, made 1,872 barrels of oil and 1,830,000 cubic feet of gas after fracture. The sand ranged from 3,489 to 3,581 feet.

### Exploratory Drilling

Eleven wildcat wells tested sediments from the Clinton to the Precambrian and ranged in depth from 904 feet to 3,910 feet.

The only Clinton wildcat, W. C. Best's Pomeroy No. 1, located in lot 2, Burton Township, Geauga County, was completed as a small gas well. The total depth is 3,910 feet.

There were two Trenton tests; H. G. Neely's Johnson No. 1, located in lot 9693, Monroe Township and Ellison No. 1 located in lot 6467, Spring Township, Adams County. Both of these tests proved unsuccessful, their total depths being 937 feet and 904 feet, respectively.

Eight "deep wells" penetrated the lower Ordovician or Cambrian sediments, one of which was plugged back and completed as a gas well producing from the Trenton. Kewanee's wells, Luttrell No. 1, located in survey 1027, Wayne Township, and the Bock No. 1, located in survey 749, Wilson Township, Clinton County; and the Streitenberger No. 1, located in survey 3675, and the Cavinee No. 1, located in survey 3619, Union Township, Fayette County, were all dry. The wells were less than 2,000 feet deep and bottomed in the Oneota formation of the lower Ordovician system. R. H. Sheldon's Vanhorn No. 1 drilled into the top of the upper Cambrian at 1,880 feet, was plugged back to 1,431 in the Trenton, and completed at 712,000 cubic feet of gas after shot. The well is located in section 22, Stokes Township, Logan County.

There were three "basement" tests in western Ohio. National Associated Petroleum's Walker No. 1, located in section 13, Lost Creek Township, Miami County, encountered the Precambrian at 3,256 feet. The total depth is 3,513 feet. Kewanee put down the Barnes No. 1, located in survey 5351, Jasper Township, Fayette County. The Precambrian was encountered at 3,380 feet and the total depth was 3,420 feet. The well is plugged back to 1,415 feet and is being tested. Their second well, the Adams No. 1, located in survey 1065, Wayne Township, Clinton County, encountered the Precambrian at 3,450 feet. The total depth is 3,457 feet. None of the deeper horizons were found productive in any of the eight wells.

### Gas Storage Wells

A total of 75 wells were drilled for gas storage; nine were drilled to the Berea and 66 were drilled to the Clinton. The footage drilled for the 9 Berea wells was 7,465 feet. The 66 Clinton wells had a total footage of 167,104 feet. To date, 2,111 wells are in use for gas storage.

### Drilled Deeper and Secondary Recovery Wells

The number of wells drilled deeper totaled 19, eight of which were deepened to the Clinton. The total initial production was 411 barrels of oil and 6,347,000 cubic feet of gas. Total

footage drilled was 9,612 feet.

Five new permits were issued by the Division of Mines for water flooding. Two permits were issued in Licking County and one in Coshocton to flood the Clinton sand. One permit was issued in Ashland County to flood the Berea and one in Noble County, to flood the Macksburg "500." The Division of Mines reports 1,357 wells are being operated in secondary recovery projects.

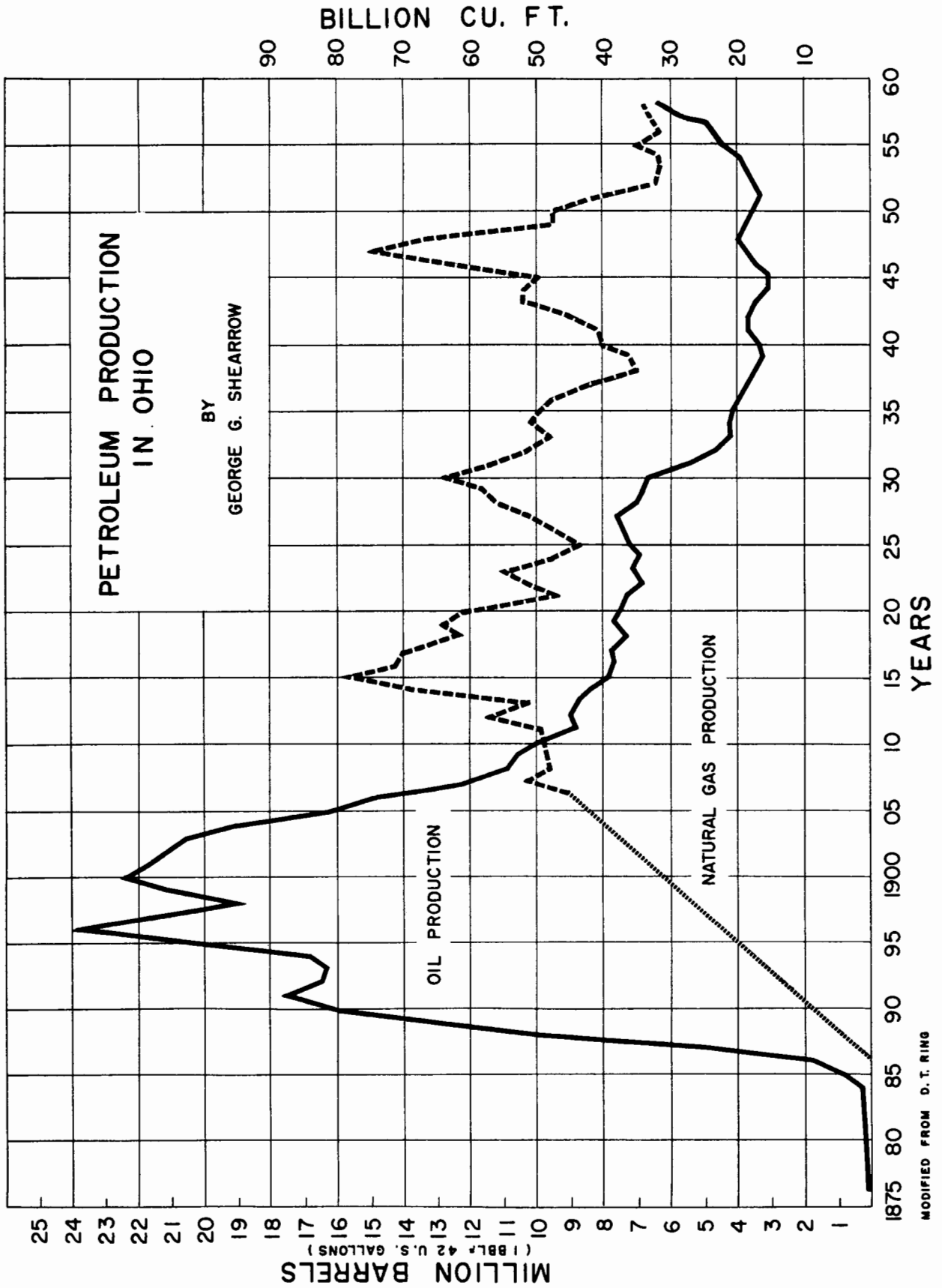
## FUTURE EXPECTATIONS

With the price of crude at 1949 and 1950 levels, the inflationary prices of steel and labor of today, and the disruption of the market by heavy foreign imports, it is difficult to be optimistic. Drilling will continue at a lesser rate with a greater emphasis placed on exploration and development of gas.

Exploration for Clinton gas in Ashtabula County will undoubtedly pick up in 1959 and this could spread into Geauga and Portage Counties.

The most recent area of active leasing in Fulton and Williams Counties of northwestern Ohio, could lead to new Trenton or deeper discoveries. Although the Trenton fields were discovered in the 1860's and 1870's, exploration beyond the limits of the Findlay-Lima fields has been negligible. It is probable that additional reserves still await tapping in this area.

The deeper potentials below the middle Ordovician need to be explored, especially where deep structures are known to exist. Not only does this hold for northwestern Ohio but for the other areas of the state as well. Twenty-three wells, most of them in western Ohio, have penetrated the entire sedimentary sequence. Over forty thousand square miles are within Ohio's boundaries and certainly 23 wells cannot prove or disprove the lower sediments.



MODIFIED FROM D. T. RING

TABLE 1  
SUMMARY OF INITIAL OIL AND GAS WELL DRILLING REPORTED IN OHIO, BY COUNTY, 1958<sup>a</sup>

County	NUMBER OF WELLS						Per Cent Dry	PRODUCTION						Feet Drilled
	Total	Producing			Combination	Dry		Total			From Oil Wells (bbl)	Combination Wells		
		Gas	Oil	Total				Gas (mcf)	Oil (bbl)	Gas (mcf)		Oil (bbl)		
Total	1,168	852	260	238	354	316	27.0	409,235	51,415	261,425	11,924	147,810	39,491	2,779,243
Adams	2	-	-	-	-	2	100.0	-	-	-	-	-	-	1,841
Ashtand	84	63	4	46	13	21	25.0	4,079	711	1,176	334	2,903	377	75,062
Ashtabula	12	9	5	-	4	3	25.0	29,425	65	28,944	-	481	65	39,515
Athens	36	21	16	-	5	15	41.7	8,524	46	8,151	-	373	46	49,729
Auglaize	1	1	-	1	-	-	-	-	10	-	10	-	-	1,241
Belmont	1	-	-	-	-	1	100.0	-	-	-	-	-	-	1,715
Carroll	5	1	1	-	-	4	80.0	536	-	536	-	-	-	5,211
Clinton	3	-	-	-	-	3	100.0	-	-	-	-	-	-	7,290
Columbiana	15	10	1	9	-	5	33.3	300	26	300	26	-	-	12,483
Coshocton	156	129	24	34	71	27	17.3	55,588	12,098	15,528	4,398	40,060	7,700	484,076
Cuyahoga	2	1	1	-	-	1	50.0	535	-	535	-	-	-	6,301
Darke	3	1	-	1	-	2	66.7	-	50	-	50	-	-	3,806
Fairfield	3	2	-	1	1	1	33.3	50	40	-	10	50	30	7,184
Fayette	3	-	-	-	-	3	100.0	-	-	-	-	-	-	7,321
Geauga	2	1	1	-	-	1	50.0	100	-	100	-	-	-	7,880
Guernsey	9	4	1	2	1	5	55.5	46	6	36	2	10	4	8,506
Harrison	6	3	3	-	-	3	50.0	270	-	270	-	-	-	7,010
Henry	1	-	-	-	-	1	100.0	-	-	-	-	-	-	1,650
Hocking	17	13	-	2	11	4	23.5	1,322	568	-	185	1,322	383	49,384
Holmes	82	68	13	12	43	14	17.1	42,249	3,846	23,881	432	18,368	3,414	270,558
Jackson	4	2	2	-	-	2	50.0	30	-	30	-	-	-	7,525
Jefferson	5	2	1	1	-	3	60.0	40	4	40	4	-	-	8,064
Knox	34	23	8	10	5	11	32.4	11,715	492	10,210	137	1,505	355	70,768
Lake	1	1	-	-	1	-	-	50	2	-	-	50	2	3,032
Lawrence	2	1	1	-	-	1	50.0	185	-	185	-	-	-	5,057
Licking	83	68	2	38	28	15	18.1	5,000	3,511	31	1,369	4,969	2,142	179,417
Logan	1	1	1	-	-	-	-	712	-	712	-	-	-	1,880
Lorain	5	4	4	-	-	1	20.0	5,026	-	5,026	-	-	-	5,555
Mahoning	2	2	2	-	-	-	-	90	-	90	-	-	-	980
Medina	15	8	1	3	4	7	46.7	2,758	463	99	208	2,659	255	40,554
Meigs	33	29	26	-	3	4	12.1	5,982	35	5,652	-	330	35	42,330
Mercer	6	3	1	2	-	3	50.0	10	6	10	6	-	-	7,160
Miami	1	-	-	-	-	1	100.0	-	-	-	-	-	-	3,513
Monroe	34	14	5	6	3	20	58.8	854	154	785	150	69	4	39,930
Morgan	30	17	16	-	1	13	43.3	5,996	200	2,826	-	3,170	200	43,106
Muskingum	65	53	17	5	31	12	18.5	51,073	3,728	29,755	372	21,318	3,356	222,922
Noble	31	12	7	5	-	19	61.3	478	12	478	12	-	-	31,478
Ottawa	1	-	-	-	-	1	100.0	-	-	-	-	-	-	1,350
Perry	84	68	12	12	44	16	19.0	40,111	5,311	24,561	882	15,550	4,429	263,291

Table 1 - Summary of Initial Oil and Gas Well Drilling Reported in Ohio, by County, 1958<sup>a</sup> - Continued

County	NUMBER OF WELLS						PRODUCTION						Feet Drilled
	Total	Producing			Dry	Per Cent Dry	Total		From Gas Wells (mcf)	From Oil Wells (bbl)	Combination Wells		
		Gas	Oil	Combination			Gas (mcf)	Oil (bbl)			Gas (mcf)	Oil (bbl)	
Pickaway	1	-	-	-	1	100.0	-	-	-	-	-	-	720
Portage	5	4	4	-	1	20.0	4,304	-	-	4,304	-	-	21,763
Scioto	10	10	10	-	-	-	66	66	-	66	-	-	3,460
Stark	15	11	8	3	4	26.7	6,824	34	-	5,064	1,760	34	58,542
Summit	12	11	6	5	1	8.3	6,915	395	-	5,840	1,075	395	40,940
Tuscarawas	37	23	6	12	14	37.8	3,131	137	-	2,876	255	38	52,532
Vinton	2	2	2	-	-	-	66	-	-	66	-	-	3,296
Washington	52	30	7	20	22	42.3	1,471	184	-	881	590	61	54,177
Wayne	149	123	41	13	26	17.4	113,324	19,213	3,047	82,381	30,943	16,166	511,162
Wyandot	5	3	-	3	2	40.0	-	68	-	-	-	-	6,976

<sup>a</sup> Wells drilled deeper, underground storage, water flooding, salt and brine wells, not included.

TABLE 2  
SUMMARY OF INITIAL OIL AND GAS WELL DRILLING REPORTED IN OHIO, BY SAND, 1958<sup>a</sup>

Sand	NUMBER OF WELLS						PRODUCTION						Feet Drilled	
	Total	Producing			Combination	Dry	Per Cent Dry	Total		From Gas Wells (mcf)	From Oil Wells (bbl)	Combination Wells		
		Gas	Oil	Combination				Gas (mcf)	Oil (bbl)			Gas (mcf)		Oil (bbl)
Total	1,168	852	260	238	354	316	27.0	409,235	51,415	261,425	11,924	147,810	39,491	2,779,243
Conemaugh	60	25	10	15	-	35	58.3	1,393	187	1,393	187	-	-	33,082
Allegheny	31	18	9	9	-	13	41.9	1,346	26	1,346	26	-	-	23,283
Pottsville	14	8	7	1	-	6	42.9	1,559	1	1,559	1	-	-	10,570
Keener	13	7	1	2	4	6	46.2	605	118	500	55	105	63	18,345
Big Injun	14	5	1	4	-	9	64.3	230	16	230	16	-	-	16,392
Squaw	3	1	-	-	1	2	66.7	500	1	-	-	500	1	4,999
Wier	9	9	9	-	-	-	-	61	-	61	-	-	-	3,123
Hamden	2	2	2	-	-	-	-	30	-	30	-	-	-	1,464
1st Berea	231	151	39	96	16	80	34.6	11,285	637	8,633	518	2,652	119	220,973
2nd Berea	72	53	39	4	10	19	26.4	13,689	110	12,887	22	802	88	102,879
Gordon	2	1	1	-	-	1	50.0	5	-	5	-	-	-	2,107
Little Cinnamon	4	3	3	-	-	1	25.0	236	-	236	-	-	-	10,117
Big Cinnamon	6	5	5	-	-	1	16.7	5,076	-	5,076	-	-	-	6,801
Columbus	1	-	-	-	-	1	100.0	-	-	-	-	-	-	2,738
Oriskany	3	3	2	-	1	-	-	3,183	45	3,108	-	75	45	6,420
Newburg	26	24	18	2	4	2	7.7	53,663	96	52,939	11	724	85	78,105
Stray, Red, and Clinton	642	527	112	98	317	115	17.9	315,600	50,019	172,700	10,954	142,900	39,065	2,165,787
Medina	8	1	-	-	1	7	87.5	52	25	-	-	52	25	28,030
Trenton	19	8	1	7	-	11	57.9	10	134	10	134	-	-	24,024
St. Peter	5	1	1	-	-	4	80.0	712	-	712	-	-	-	9,624
Precambrian	3	-	-	-	-	3	100.0	-	-	-	-	-	-	10,380

<sup>a</sup> Wells drilled deeper, underground storage, water flooding, salt and brine wells, not included.

TABLE 3  
SUMMARY OF INITIAL OIL AND GAS WELL DRILLING REPORTED IN OHIO, BY COUNTY AND SAND, 1958<sup>a</sup>

County and Sand	NUMBER OF WELLS					PRODUCTION					Feet Drilled	
	Total	Producing			Dry	Total		From Gas Wells (mcf)	From Oil Wells (bbl)	Combination Wells		
		Gas	Oil	Combination		Gas (mcf)	Oil (bbl)			Gas (mcf)		Oil (bbl)
<b>Total</b>	1,168	852	260	238	354	316	409,235	51,415	11,924	147,810	39,491	2,779,243
<b>ADAMS</b> Trenton	2	-	-	-	-	2	-	-	-	-	-	1,841
<b>ASHLAND</b> 1st Berea Stray, Red, and Clinton Total	77	56	2	46	8	21	1,559	412	334	1,526	78	53,566
	7	7	2	-	5	-	2,520	299	-	1,377	299	21,496
	84	63	4	46	13	21	4,079	711	334	2,903	377	75,062
<b>ASHTABULA</b> Stray, Red, and Clinton	12	9	5	-	4	3	29,425	65	-	481	65	39,515
<b>ATHENS</b> Conemaugh	4	1	1	-	-	3	200	-	200	-	-	1,237
Allegheny	1	-	-	-	-	1	-	-	-	-	-	125
Pottsville	3	2	2	-	-	1	55	-	55	-	-	2,456
1st Berea	4	3	1	-	2	1	1,006	6	-	104	6	4,734
2nd Berea	22	14	12	-	2	8	7,211	15	-	217	15	33,875
Stray, Red, and Clinton	1	-	-	-	-	1	-	-	-	-	-	3,635
Medina	1	1	-	-	1	-	52	25	-	52	25	3,667
Total	36	21	16	-	5	15	8,524	46	-	373	46	49,729
<b>AUGLAIZE</b> Trenton	1	1	-	1	-	-	-	10	10	-	-	1,241
<b>BELMONT</b> 1st Berea	1	-	-	-	-	1	-	-	-	-	-	1,715
<b>CARROLL</b> Conemaugh	1	1	1	-	-	-	536	-	-	-	-	458
1st Berea	2	-	-	-	-	-	-	-	-	-	-	2,214
2nd Berea	2	-	-	-	-	2	-	-	-	-	-	2,539
Total	5	1	1	-	-	4	536	-	-	-	-	5,211
<b>CLINTON</b> St. Peter Precambrian Total	2	-	-	-	-	2	-	-	-	-	-	3,833
	1	-	-	-	-	1	-	-	-	-	-	3,457
	3	-	-	-	-	3	-	-	-	-	-	7,290
<b>COLUMBIANA</b> 1st Berea	14	9	1	8	-	5	300	23	23	-	-	11,780
2nd Berea	1	1	-	1	-	-	-	3	3	-	-	703
Total	15	10	1	9	-	5	300	26	26	-	-	12,483



Table 3 - Summary of Initial Oil and Gas Well Drilling Reported in Ohio, by County and Sand, 1958<sup>a</sup> - Continued

County and Sand	NUMBER OF WELLS						PRODUCTION						Feet Drilled
	Total	Producing			Combination	Dry	Total		From Gas Wells (mcf)	From Oil Wells (bbl)	Combination Wells		
		Gas	Oil	Combination			Gas (mcf)	Oil (bbl)			Gas (mcf)	Oil (bbl)	
<b>JACKSON</b>													
Hamden	2	2	-	-	-	-	30	30	-	-	-	-	1,464
Stray, Red, and Clinton	2	-	-	-	2	2	-	-	-	-	-	-	6,061
Total	4	2	-	-	-	-	30	30	-	-	-	-	7,525
<b>JEFFERSON</b>													
1st Berea	5	2	1	1	-	3	40	40	4	4	-	-	8,064
<b>KNOX</b>													
1st Berea	12	5	-	5	-	7	-	-	9	9	-	-	8,416
Stray, Red, and Clinton	22	18	8	5	5	4	11,715	483	128	1,505	355	355	62,352
Total	34	23	8	10	5	11	11,715	492	137	1,505	355	355	70,768
<b>LAKE</b>													
Stray, Red, and Clinton	1	1	-	-	1	-	50	2	-	50	-	2	3,032
<b>LAWRENCE</b>													
Little Cinnamon	2	1	1	-	-	1	185	-	-	-	-	-	5,057
<b>LICKING</b>													
1st Berea	28	22	1	21	-	6	20	60	60	20	-	-	19,644
Little Cinnamon	1	1	1	-	-	-	11	-	-	11	-	-	1,380
Newburg	2	2	-	1	1	-	300	53	3	-	300	50	4,241
Stray, Red, and Clinton	52	43	-	16	27	9	4,669	3,398	1,306	-	4,669	2,092	154,152
Total	83	68	2	38	28	15	5,000	3,511	1,369	31	4,969	2,142	179,417
<b>LOGAN</b>													
St. Peter	1	1	1	-	-	-	712	-	-	712	-	-	1,880
<b>LORAIN</b>													
Big Cinnamon	4	4	4	-	-	-	5,026	-	-	5,026	-	-	3,036
Stray, Red, and Clinton	1	-	-	-	-	1	-	-	-	-	-	-	2,519
Total	5	4	4	-	-	1	5,026	-	-	5,026	-	-	5,555
<b>MAHONING</b>													
1st Berea	2	2	2	-	-	-	90	-	-	90	-	-	980
<b>MEDINA</b>													
1st Berea	2	-	-	-	-	2	-	-	-	-	-	-	992
Big Cinnamon	1	-	-	-	-	1	-	-	-	-	-	-	390
Newburg	1	1	-	1	-	-	-	8	8	-	-	-	2,812
Stray, Red, and Clinton	11	7	1	2	4	4	2,758	455	200	99	2,659	255	36,360
Total	15	8	1	3	4	7	2,758	463	208	99	2,659	255	40,554





Keener	6	5	1	2	2	1	590	115	500	55	90	60	9,108
Big Injun	8	4	-	4	-	4	-	16	-	16	-	-	10,015
Squaw	1	1	-	-	1	-	500	1	-	-	500	1	1,790
1st Berea	7	5	4	1	-	2	345	1	345	1	-	-	13,167
Total	52	30	7	20	3	22	1,471	184	881	123	590	61	54,177
WAYNE													
1st Berea	3	-	-	-	-	3	-	-	-	-	-	-	2,002
Columbus	1	-	-	-	-	1	-	-	-	-	-	-	2,738
Newburg	22	20	17	-	3	2	52,828	35	52,404	-	424	35	67,906
Stray, Red, and Clinton	123	103	24	13	66	20	60,496	19,178	29,977	3,047	30,519	16,131	438,516
Total	149	123	41	13	69	26	113,324	19,213	82,381	3,047	30,943	16,166	511,162
WYANDOT													
Trenton	5	3	-	3	-	2	-	68	-	68	-	-	6,976

<sup>a</sup> Old wells drilled deeper, underground storage, water flooding, salt and brine wells, not included.

TABLE 4  
SUMMARY OF INITIAL OIL AND GAS WELL DRILLING REPORTED IN OHIO, BY SAND AND COUNTY, 1958<sup>a</sup>

Sand and County	NUMBER OF WELLS						PRODUCTION						Feet Drilled
	Total	Producing			Dry	Total		From Gas Wells (mcf)	From Oil Wells (bbl)	Combination Wells		Oil (bbl)	
		Total	Gas	Oil		Combination	Gas (mcf)			Oil (bbl)	Gas (mcf)		
<b>Total</b>	1,168	852	260	238	354	316	409,235	51,415	11,924	147,810	39,491	2,779,243	
<b>CONEMAUGH</b>													
Athens	4	1	1	-	-	3	200	-	200	-	-	1,237	
Carroll	1	1	1	-	-	-	536	-	536	-	-	458	
Guernsey	1	-	-	-	-	-	-	-	-	-	-	115	
Meigs	9	7	7	4	-	2	652	143	652	-	-	4,445	
Monroe	13	4	-	-	-	9	-	-	-	-	-	10,694	
Morgan	6	-	-	-	-	5	-	-	-	-	-	1,684	
Noble	6	1	-	1	-	5	-	5	-	-	-	2,320	
Vinton	1	1	1	-	-	-	5	-	5	-	-	575	
Washington	20	10	-	10	-	10	-	39	-	-	-	11,554	
<b>Total</b>	60	25	10	15	-	35	1,393	187	1,393	-	-	33,082	
<b>ALLEGHENY</b>													
Athens	1	-	-	-	-	1	-	-	-	-	-	125	
Guernsey	2	1	-	1	-	1	-	1	-	-	-	970	
Harrison	2	2	2	-	-	-	176	-	176	-	-	1,344	
Meigs	1	1	1	-	-	-	64	-	64	-	-	472	
Monroe	6	3	1	2	-	3	260	7	260	-	-	5,934	
Morgan	3	2	2	-	-	1	748	-	748	-	-	1,798	
Noble	8	4	1	3	-	4	62	6	62	-	-	5,642	
Washington	8	5	2	3	-	3	36	12	36	-	-	6,998	
<b>Total</b>	31	18	9	9	-	13	1,346	26	1,346	-	-	23,283	
<b>POTTSVILLE</b>													
Athens	3	2	2	-	-	1	55	-	55	-	-	2,456	
Meigs	2	1	1	-	-	1	370	-	370	-	-	1,364	
Monroe	2	2	2	-	-	-	350	-	350	-	-	1,886	
Morgan	3	2	2	-	-	-	784	-	784	-	-	2,281	
Noble	2	1	-	1	-	1	-	1	-	-	-	1,038	
Washington	2	-	-	-	-	2	-	-	-	-	-	1,545	
<b>Total</b>	14	8	7	1	-	6	1,559	1	1,559	-	-	10,570	
<b>KEENER</b>													
Harrison	1	-	-	-	-	1	-	-	-	-	-	862	
Meigs	1	-	-	-	-	1	-	-	-	-	-	705	
Monroe	4	2	-	-	2	2	15	3	-	-	3	6,345	
Noble	1	-	-	-	-	1	-	-	-	-	-	1,325	
Washington	6	5	1	2	2	1	590	115	500	-	60	9,108	
<b>Total</b>	13	7	1	2	4	6	605	118	500	105	63	18,345	
<b>BIG INJUN</b>													
Guernsey	1	-	-	-	-	1	-	-	-	-	-	420	
Monroe	3	-	-	-	-	3	-	-	-	-	-	4,590	
Noble	2	1	1	-	-	4	230	-	230	-	-	1,367	
Washington	8	4	-	4	-	4	-	16	-	-	-	10,015	
<b>Total</b>	14	5	1	4	-	9	230	16	230	-	16	16,392	



Table 4 - Summary of Initial Oil and Gas Well Drilling Reported in Ohio, by Sand and County, 1958<sup>a</sup> - Continued

Sand and County	NUMBER OF WELLS						PRODUCTION						Feet Drilled
	Total	Producing			Dry	Total		From Gas Wells (mcf)	From Oil Wells (bbbl)	Combination Wells		Oil (bbbl)	
		Total	Gas	Oil		Combination	Gas (mcf)			Oil (bbbl)	Gas (mcf)		
<b>LITTLE CINNAMON</b>													
Lawrence	2	1	-	-	1	185	-	185	-	-	-	-	5,057
Licking	1	1	-	-	-	11	-	11	-	-	-	-	1,380
Perry	1	1	-	-	-	40	-	40	-	-	-	-	3,680
Total	4	3	-	-	1	236	-	236	-	-	-	-	10,117
<b>BIG CINNAMON</b>													
Lorain	4	4	-	-	-	5,026	-	5,026	-	-	-	-	3,036
Medina	1	-	-	-	1	-	-	-	-	-	-	-	390
Meigs	1	1	-	-	-	50	-	50	-	-	-	-	3,375
Total	6	5	-	-	1	5,076	-	5,076	-	-	-	-	6,801
<b>COLUMBUS</b>													
Wayne	1	-	-	-	1	-	-	-	-	-	-	-	2,738
<b>ORISKANY</b>													
Summit	3	3	-	-	1	3,183	45	3,108	-	-	75	45	6,420
<b>NEWBURG</b>													
Cuyahoga	1	1	-	-	-	535	-	535	-	-	-	-	3,146
Licking	2	2	-	-	-	300	-	-	3	300	-	50	4,241
Medina	1	1	-	-	-	-	8	-	8	-	-	-	2,812
Wayne	22	20	17	3	2	52,828	35	52,404	-	424	35	35	67,906
Total	26	24	18	4	2	53,663	96	52,939	11	724	85	85	78,105
<b>STRAY, RED AND CLINTON</b>													
Ashland	7	7	-	-	-	2,520	299	1,143	-	1,377	299	299	21,496
Ashtabula	12	9	-	-	3	29,425	65	28,944	-	481	65	65	39,515
Athens	1	-	-	-	1	-	-	-	-	-	-	-	3,635
Coshocton	138	114	12	69	24	51,680	12,088	11,685	4,395	39,995	7,693	7,693	465,930
Cuyahoga	3	2	-	-	1	-	40	-	10	-	-	-	3,155
Fairfield	3	2	-	-	1	50	-	-	-	50	30	30	7,184
Geauga	2	1	-	-	1	100	-	100	-	-	-	-	7,880
Hocking	16	13	-	-	3	1,322	568	-	185	1,322	383	383	46,736
Holmes	77	65	12	42	12	41,353	3,830	23,831	431	17,522	3,399	3,399	261,032
Jackson	2	2	-	-	2	-	-	-	-	-	-	-	6,061
Knox	22	18	8	5	4	11,715	483	10,210	128	1,505	355	355	62,352
Lake	1	1	-	-	-	50	2	-	-	50	2	2	3,032
Licking	52	43	-	-	9	4,669	3,398	-	1,306	4,669	2,092	2,092	154,152
Lorain	1	-	-	-	1	-	-	-	-	-	-	-	2,519
Medina	11	7	1	4	4	2,758	455	99	200	2,659	255	255	36,360
Morgan	2	1	-	-	1	3,170	200	-	200	3,170	200	200	9,586
Muskingum	63	52	17	30	11	51,026	3,720	29,755	372	21,271	3,348	3,348	216,648
Perry	78	65	11	44	13	40,071	5,309	24,521	880	15,550	4,429	4,429	253,557
Portage	5	4	4	-	1	4,304	-	4,304	-	-	-	-	21,763
Stark	13	11	8	3	2	6,824	34	5,064	-	1,760	34	34	56,954
Summit	9	8	4	4	1	3,732	350	2,732	-	1,000	350	350	34,520
Tuscarawas	2	2	-	-	-	274	-	274	-	-	-	-	10,483

Warren	1	1	1	66	20	61	61	19,178	29,977	3,047	30,519	16,131	2,721
Wayne	123	103	24	13	20	60,496	60,496	50,019	172,700	3,047	30,519	16,131	438,516
Total	642	527	112	98	115	315,600	315,600	50,019	172,700	10,954	142,900	39,065	2,165,787
MEDINA													
Athens	1	1	-	-	1	52	52	25	-	-	52	25	3,667
Hocking	1	-	-	-	-	-	-	-	-	-	-	-	2,648
Holmes	2	-	-	-	2	-	-	-	-	-	-	-	7,098
Morgan	1	-	-	-	1	-	-	-	-	-	-	-	4,484
Muskingum	1	-	-	-	1	-	-	-	-	-	-	-	4,857
Pickaway	1	-	-	-	1	-	-	-	-	-	-	-	4,720
Tuscarawas	1	-	-	-	1	-	-	-	-	-	-	-	4,556
Total	8	1	-	-	7	52	52	25	-	-	52	25	28,030
TRENTON													
Adams	2	-	-	-	2	-	-	-	-	-	-	-	1,841
Auglaize	1	1	-	1	-	-	-	10	-	10	-	-	1,241
Darke	3	1	-	1	2	-	-	50	-	50	-	-	3,806
Henry	1	-	-	-	1	-	-	-	-	-	-	-	1,650
Mercer	6	3	1	2	3	10	10	6	10	6	-	-	7,160
Ottawa	1	-	-	-	1	-	-	-	-	-	-	-	1,350
Wyandot	5	3	-	3	2	-	-	68	-	68	-	-	6,976
Total	19	8	1	7	11	10	10	134	10	134	-	-	24,024
ST. PETER													
Clinton	2	-	-	-	2	-	-	-	-	-	-	-	3,833
Fayette	2	-	-	-	2	-	-	-	-	-	-	-	3,911
Logan	1	1	1	-	-	712	712	-	712	-	-	-	1,880
Total	5	1	1	-	4	712	712	-	712	-	-	-	9,624
PRECAMBRIAN													
Clinton	1	-	-	-	1	-	-	-	-	-	-	-	3,457
Fayette	1	-	-	-	1	-	-	-	-	-	-	-	3,410
Miami	1	-	-	-	1	-	-	-	-	-	-	-	3,513
Total	3	-	-	-	3	-	-	-	-	-	-	-	10,380

<sup>a</sup> Old wells drilled deeper, underground storage, water flooding, salt and brine wells, not included.

TABLE 5

NUMBER OF FEET DRILLED BY TYPE OF WELL AND COUNTY, OHIO, 1958<sup>a</sup>

County	NUMBER OF WELLS					NUMBER OF FEET DRILLED				
	Total	Gas	Oil	Combi- nation	Dry	Total	Gas	Oil	Combi- nation	Dry
<b>TOTAL</b>	<b>1,168</b>	<b>260</b>	<b>238</b>	<b>354</b>	<b>316</b>	<b>2,779,243</b>	<b>612,505</b>	<b>435,881</b>	<b>1,112,979</b>	<b>617,878</b>
Adams	2	-	-	-	2	1,841	-	-	-	1,841
Ashland	84	4	46	13	21	75,062	7,703	32,409	21,080	13,870
Ashtabula	12	5	-	4	3	39,515	15,802	-	13,879	9,834
Athens	36	16	-	5	15	49,729	22,320	-	8,811	18,598
Auglaize	1	-	1	-	-	1,241	-	1,241	-	-
Belmont	1	-	-	-	1	1,715	-	-	-	1,715
Carroll	5	1	-	-	4	5,211	458	-	-	4,753
Clinton	3	-	-	-	3	7,290	-	-	-	7,290
Columbiana	15	1	9	-	5	12,483	735	7,429	-	4,319
Coshocton	156	24	34	71	27	484,076	53,613	108,836	235,193	86,434
Cuyahoga	2	1	-	-	1	6,301	3,146	-	-	3,155
Darke	3	-	1	-	2	3,806	-	1,286	-	2,520
Fairfield	3	-	1	1	1	7,184	-	2,486	2,448	2,250
Fayette	3	-	-	-	3	7,321	-	-	-	7,321
Geauga	2	1	-	-	1	7,880	3,910	-	-	3,970
Guernsey	9	1	2	1	5	8,506	1,460	1,986	1,394	3,666
Harrison	6	3	-	-	3	7,010	2,893	-	-	4,117
Henry	1	-	-	-	1	1,650	-	-	-	1,650
Hocking	17	-	2	11	4	49,384	-	5,448	31,973	11,963
Holmes	82	13	12	43	14	270,558	40,777	37,609	143,014	49,158
Jackson	4	2	-	-	2	7,525	1,464	-	-	6,061
Jefferson	5	1	1	-	3	8,064	1,368	1,845	-	4,851
Knox	34	8	10	5	11	70,768	22,640	17,740	13,842	16,546
Lake	1	-	-	1	-	3,032	-	-	3,032	-
Lawrence	2	1	-	-	1	5,057	2,827	-	-	2,230
Licking	83	2	38	28	15	179,417	2,028	64,402	82,546	30,441
Logan	1	1	-	-	-	1,880	1,880	-	-	-
Lorain	5	4	-	-	1	5,555	3,036	-	-	2,519
Mahoning	2	2	-	-	-	980	980	-	-	-
Medina	15	1	3	4	7	40,554	3,281	8,955	12,649	15,669
Meigs	33	26	-	3	4	42,330	34,587	-	5,009	2,734
Mercer	6	1	2	-	3	7,160	1,172	2,254	-	3,734
Miami	1	-	-	-	1	3,513	-	-	-	3,513
Monroe	34	5	6	3	20	39,930	6,271	5,269	4,962	23,428
Morgan	30	16	-	1	13	43,106	20,727	-	4,690	17,689
Muskingum	65	17	5	31	12	222,922	59,718	15,739	105,220	42,245
Noble	31	7	5	-	19	31,478	9,787	3,070	-	18,621
Ottawa	1	-	-	-	1	1,350	-	-	-	1,350
Perry	84	12	12	44	16	263,291	40,833	35,332	142,072	45,054
Pickaway	1	-	-	-	1	720	-	-	-	720
Portage	5	4	-	-	1	21,763	17,419	-	-	4,344
Scioto	10	10	-	-	-	3,460	3,460	-	-	-
Stark	15	8	-	3	4	58,542	34,628	-	13,925	9,989
Summit	12	6	-	5	1	40,940	20,172	-	16,828	3,940
Tuscarawas	37	6	12	5	14	52,532	15,352	13,528	5,331	18,321
Vinton	2	2	-	-	-	3,296	3,296	-	-	-
Washington	52	7	20	3	22	54,177	11,103	18,048	4,809	20,217
Wayne	149	41	13	69	26	511,162	141,659	46,765	240,272	82,466
Wyandot	5	-	3	-	2	6,976	-	4,204	-	2,772

<sup>a</sup>Old wells drilled deeper, underground storage, water flooding, salt and brine wells, not included.

TABLE 6  
 NUMBER OF FEET DRILLED BY TYPE OF WELL AND SAND, OHIO, 1958<sup>a</sup>

Sand	NUMBER OF WELLS				NUMBER OF FEET DRILLED					
	Total	Gas	Oil	Combi- nation	Dry	Total	Gas	Oil	Combi- nation	Dry
<b>TOTAL</b>	1,168	260	238	354	316	2,779,243	612,505	435,881	1,112,979	617,878
Cone maugh	60	10	15	-	35	33,082	4,644	10,022	-	18,416
Allegheny	31	9	9	-	13	23,283	7,218	6,346	-	9,719
Pottsville	14	7	1	-	6	10,570	5,581	761	-	4,228
Keener	13	1	2	4	6	18,345	1,363	3,009	6,276	7,697
Big Injun	14	1	4	-	9	16,392	994	4,804	-	10,594
Squaw	3	-	-	1	2	4,999	-	-	1,790	3,209
Wier	9	9	-	-	-	3,123	3,123	-	-	-
Hamden	2	2	-	-	-	1,464	1,464	-	-	-
1st Berea	231	39	96	16	80	220,973	49,902	76,453	15,070	79,548
2nd Berea	72	39	4	10	19	102,879	60,039	4,085	13,321	25,434
Gordon	2	1	-	-	1	2,107	337	-	-	1,770
Little Cinnamon	4	3	-	-	1	10,117	7,887	-	-	2,230
Big Cinnamon	6	5	-	-	1	6,801	6,411	-	-	390
Columbus	1	-	-	-	1	2,738	-	-	-	2,738
Oriskany	3	2	-	1	-	6,420	4,225	-	2,195	-
Newburg	26	18	2	4	2	78,105	55,926	4,948	11,530	5,701
Clinton	642	112	98	317	115	2,165,787	400,339	316,468	1,059,130	389,850
Medina	8	-	-	1	7	28,030	-	-	3,667	24,363
Trenton	19	1	7	-	11	24,024	1,172	8,985	-	13,867
St. Peter	5	1	-	-	4	9,624	1,880	-	-	7,744
Precambrian	3	-	-	-	3	10,380	-	-	-	10,380

<sup>a</sup> Old wells drilled deeper, underground storage, water flooding, salt and brine wells, not included.

TABLE 7

DRILLING PERMITS ISSUED, WELLS ABANDONED AND MUDDIED  
BY COUNTY, OHIO, 1958<sup>a</sup>

County	Drilling Permits Issued	New Dry Holes Plugged	Old Wells Plugged	Total No. Wells Plugged	Total No. Wells Mudded
Adams	2	-	-	-	-
Allen	-	-	2	2	-
Ashland	106	22	22	44	55
Ashtabula	13	3	-	3	1
Athens	33	14	27	41	7
Auglaize	1	-	2	2	-
Belmont	2	-	6	6	-
Butler	-	3	-	3	-
Carroll	3	4	1	5	-
Clinton	3	3	-	3	-
Columbiana	24	3	3	6	36
Coshocton	148	26	41	67	29
Cuyahoga	1	1	29	30	-
Darke	4	1	2	3	-
Fairfield	5	1	3	4	-
Fayette	3	2	-	2	-
Gallia	-	-	2	2	1
Geauga	2	1	-	1	-
Guernsey	5	3	3	6	1
Hancock	-	-	17	17	-
Harrison	4	3	7	10	-
Hocking	18	4	23	27	8
Holmes	91	11	39	50	14
Jackson	3	2	2	4	-
Jefferson	7	3	6	9	-
Knox	29	8	32	40	7
Lake	1	-	2	2	-
Lawrence	2	1	2	3	-
Licking	88	13	40	53	20
Logan	1	-	-	-	-
Lorain	4	-	8	8	-
Lucas	1	-	4	4	-
Mahoning	2	-	-	-	-
Marion	1	-	-	-	-
Medina	29	4	17	21	1
Meigs	41	2	56	58	13
Mercer	4	-	10	10	-
Miami	1	-	-	-	-
Monroe	29	11	23	34	-
Morgan	30	9	30	39	14
Muskingum	55	14	46	60	40

Table 7 - Drilling Permits Issued, Wells Abandoned and Mudded, by County, 1958<sup>a</sup> - Continued

County	Drilling Permits Issued	New Dry Holes Plugged	Old Wells Plugged	Total No. Wells Plugged	Total No. Wells Mudded
Noble	30	15	9	24	10
Ottawa	1	1	-	1	1
Perry	86	14	68	82	10
Pickaway	2	-	-	-	-
Portage	5	1	-	1	5
Putnam	-	-	1	1	-
Richland	3	1	-	1	1
Sandusky	-	-	21	21	-
Scioto	9	-	-	-	-
Seneca	-	-	4	4	-
Shelby	-	-	1	1	-
Stark	13	4	16	20	22
Summit	12	-	2	2	4
Trumbull	1	-	-	-	-
Tuscarawas	27	10	15	25	2
Van Wert	-	-	4	4	-
Vinton	40	1	2	3	-
Warren	3	-	1	1	-
Washington	50	13	99	112	-
Wayne	165	30	23	53	184
Wood	-	1	46	47	-
Wyandot	5	-	2	2	-
Totals	1,248	263	819	1,084	487

<sup>a</sup> Information from Ohio Division of Mines.

TABLE 8

## ACTIVE WATER FLOOD DATA, BY COUNTY AND SAND, 1958

County	Permits to Water Flood	Total Active Water Flood	Permits to Drill		Old Wells Plugged		New Wells Plugged		Operative Wells as of 1-1-59		Sand
			Oil	Input	Oil	Input	Oil	Input	Oil	Input	
Ashland	1	3	1	1	4	-	2	-	73	16	Berea
Coshocton	1	1	-	-	-	-	-	-	16	1	Clinton
Fairfield	-	1	-	-	1	1	-	-	1	-	Newburg
Hancock	-	1	-	-	4	1	-	-	9	4	Trenton
Licking	2	2	-	-	-	-	-	-	20	16	Clinton
Lorain	-	1	-	-	-	-	-	-	13	16	Berea
Medina	-	5*	10	10	14	3	1	-	651	441	Berea
Meigs	-	-	-	-	1	-	-	-	-	-	Berea
Monroe	-	1	-	-	3	-	-	-	34	13	Keener
Muskingum	-	1	-	-	-	5	-	-	16	3	Oriskany
Noble	1	2	2	-	2	-	1	-	4	2	Macksburg 500**
Perry	-	1	-	-	-	-	-	-	5	3	Clinton
Totals	5	20	13	11	29	10	2	-	842	515	

\* Seven operating from effects of five floods

\*\* Buell Run sand

TABLE 9

## 1958, OIL AND GAS PRODUCTION, RESERVES, AND GAS STORAGE

Item	Oil (bbl)	Gas (mcf) <sup>e</sup>	Gas Stored Underground (mcf)
Reserves, December 31, 1957 . . . . .	68,150,000	672,406,000	-
Volume in storage, December 31, 1957 . .	-	229,408,000	229,408,000
Total . . . . .	68,150,000	901,814,000	229,408,000
Extensions and revisions, 1958 . . . . .	9,166,000 <sup>d</sup>	(76,781,000)	-
Discoveries, 1958 . . . . .	-	13,620,000	-
Net change in underground storage . . . .	-	13,274,000	101,460,000 <sup>a</sup>
Total . . . . .	9,166,000	(49,887,000)	
Production . . . . .	6,525,000 <sup>f</sup>	33,875,000	88,186,000 <sup>b</sup>
Reserves, December 31, 1958 . . . . .	70,791,000	575,370,000	-
Volume in storage, December 31, 1958 . .	-	242,682,000	242,682,000
Total . . . . .	70,791,000	818,052,000	242,682,000
Number of Wells			
	Oil	Gas	Gas Storage
Producing wells, December 31, 1957 . . .	17,098	6,970	2,036
Wells completed, 1958 . . . . .	592 <sup>g</sup>	260	75
Old wells plugged . . . . .	617	202	-
Producing wells, December 31, 1958 . . .	17,073	7,028	2,111 <sup>c</sup>
Number of storage areas . . . . .	-	-	16

a - Stored  
b - Withdrawn from storage  
c - Including reconditioned wells

d - A. P. I.  
e - A. G. A.  
f - Ohio Oil and Gas Association  
g - Includes 354 combination wells

TABLE 10  
WELL COMPLETIONS, OHIO, 1944 - 1958<sup>a</sup>

Year	Total	Number of Wells				Percent			
		Gas	Oil	Combi- nation <sup>b</sup>	Dry	Gas	Oil	Combi- nation <sup>b</sup>	Dry
1944	1,040	478	169	-	393	46.0	16.2	-	37.8
1945	1,034	429	220	-	385	41.5	21.3	-	37.2
1946	1,293	547	338	-	408	42.3	26.1	-	31.6
1947	1,383	582	317	-	484	42.1	22.9	-	35.0
1948	1,455	428	493	-	534	29.4	33.9	-	36.7
1949	1,052	292	254	80	426	27.8	24.1	7.6	40.5
1950	1,142	284	282	100	476	24.9	24.7	8.7	41.7
1951	1,061	240	315	71	435	22.6	29.7	6.7	41.0
1952	1,140	218	392	60	470	19.1	34.4	5.3	41.2
1953	1,097	181	466	64	386	16.5	42.5	5.8	35.2
1954	1,195	248	459	81	407	20.7	38.4	6.8	34.1
1955	1,234	247	372	279	336	20.0	30.2	22.6	27.2
1956	1,245	206	324	348	367	16.5	26.0	28.0	29.5
1957	1,041	199	289	285	268	19.1	27.8	27.4	25.7
1958	1,168	260	238	354	316	22.3	20.4	30.3	27.0

a - Wells drilled deeper, for gas storage, brine, or water flooding are not included.

b - Data prior to 1949 included with either oil or gas wells.

TABLE 11  
PRODUCTION, RESERVES, AND STORAGE OF GAS, OHIO, 1945 - 1958  
(In millions of cubic feet)

Year	Production	Reserves as of December 31 <sup>b</sup>	Net Change in Underground Storage	Net Storage as of December 31
1945	-	626,800	-	-
1946	59,000	614,000	-	-
1947	74,000	611,200	-	-
1948	60,732	581,108	-	48,345
1949	47,000	585,597	18,629	66,974
1950	47,200	585,048	11,840	78,814
1951	41,400	658,439	25,696	104,510
1952	32,500	697,517	33,966	138,476
1953	31,280	592,831	24,675	163,151
1954	31,531	598,039	13,551	176,702
1955 <sup>a</sup>	35,081	617,511	15,675	192,377
1956 <sup>a</sup>	31,727	641,319	23,655	212,288
1957 <sup>a</sup>	32,261	672,406	17,120	229,408
1958 <sup>a</sup>	33,875	575,370	13,274	242,682

a - Source: A. G. A.

b - Exclusive of underground storage.

TABLE 12

## CRUDE OIL PRODUCTION BY GRADES, OHIO, 1944 - 1958

(In thousands of barrels)

Year	Total	Buckeye-Pennsylvania	Zanesville <sup>a</sup>	Corning	Cleveland-Chatham	Lima
1944	3,053	1,656	-	810	382	205
1945	3,012	1,507	-	815	325	365
1946	3,508	2,063	-	757	292	396
1947	3,618	2,401	-	724	285	208
1948	3,906	2,625	-	804	276	201
1949	3,485	1,726	307	966	310	176
1950	3,314	1,574	261	1,029	311	139
1951	3,141	1,332	234	1,163	294	118
1952	3,350	1,181	204	1,513	268	184
1953	3,695	1,104	177	1,937	270	207
1954	3,887	1,108	203	2,153	317	106
1955	4,327	1,162	171	2,619	275	100
1956 <sup>b</sup>	4,739	1,149	159	3,077	272	82
1957 <sup>b</sup>	5,556	1,180	158	3,854	288	76
1958 <sup>b</sup>	6,525	1,305	127	4,739	281	73

a - Included with Buckeye-Pennsylvania or Corning prior to 1949.

b - Source: Ohio Oil and Gas Association.

TABLE 13  
 CRUDE OIL PRICES BY GRADES, OHIO  
 January 1, 1954 - June 16, 1958 <sup>a</sup>

Date of Change	Buckeye-Pennsylvania	Zanesville	Corning	Cleveland-Chatham	Lima
1954					
January 1 . . . . .	\$3.24	\$2.75	\$2.72 <sup>b</sup>	\$2.70 <sup>b</sup>	\$2.50 <sup>b</sup>
May 20 . . . . .	2.74	2.50	-	-	-
November 1 . . . . .	2.64	-	2.72 <sup>c</sup>	2.62	-
November 1 . . . . .	-	-	2.65 <sup>d</sup>	-	-
December 1 . . . . .	2.76	2.62	-	-	-
1955					
January 21 . . . . .	2.91	2.72	-	-	-
July 11 . . . . .	3.01	2.82	-	-	-
November 1 . . . . .	3.15	2.87	-	-	-
1956					
February 6 . . . . .	3.40	2.97	-	-	-
March 16 . . . . .	3.60	3.02	-	-	-
May 16 . . . . .	3.85	3.10	-	-	-
July 16 . . . . .	3.97	3.15	-	-	-
August 16 . . . . .	4.07	-	-	-	-
1957					
January 9 . . . . .	-	-	2.97 <sup>c</sup>	-	-
January 9 . . . . .	-	-	2.65 <sup>d</sup>	-	-
January 10 . . . . .	-	-	2.97 <sup>c</sup>	2.87	2.75
January 10 . . . . .	-	-	2.90 <sup>d</sup>	-	-
January 16 . . . . .	4.23	3.27	-	-	-
July 26 . . . . .	4.00	3.04	-	-	-
August 16 . . . . .	-	-	2.90	-	-
1958					
January 6 . . . . .	-	-	2.90 <sup>c</sup>	-	-
January 6 . . . . .	-	-	2.77 <sup>d</sup>	-	-
January 8 . . . . .	-	-	2.77 <sup>c</sup>	-	-
January 15 . . . . .	-	-	-	2.72	2.60
February 12 . . . . .	-	-	2.72 <sup>d</sup>	-	-
February 15 . . . . .	-	2.72	2.72 <sup>c</sup>	-	-
March 3 . . . . .	3.75	-	-	-	-
April 16 . . . . .	3.50	-	-	-	-
June 16 . . . . .	3.25	-	-	-	-

a - Source: Ohio Oil and Gas Association.

b - No change.

c - Ashland Oil and Refining Company.

d - Joseph Seep Purchasing Agency.

TABLE 14  
WELL CUTTINGS AND CORES RECEIVED AT THE OHIO DIVISION OF GEOLOGICAL SURVEY DURING 1958

LOCATION			OWNERSHIP			SAMPLE DATA				Year Completed	Samples Missing
County and Township	Section	File No.	Operator	Farm	Depth Range From Feet To Feet	Geologic Range From To	Total Depth Feet				
ATHENS Troy	Fr. 3, sec. 9	743	B. H. Putnam	#1 E. F. Story (Stacy)	150	4,172	Monongahela Heiderberg	4,172	1949	159-170; 463-472; 550-559; 1,340 1,343; 1,422-1,423; 1,628-1,631	
CUYAHOGA Cleveland Harbor		737	International Salt Co.	#2 International Salt Co.	970	2,027	Columbus Bass Island	2,029	1957	1,673-1,749; 1,750-1,752; 1,768 1,849; 1,954-2,000	
FAYETTE Union	B. S. 663	750	Kewanee Oil Co.	#1 E. A. Hopkins - samples also - Core #1 Core #2 Core #3 Core #4 Core #5 Core #6 Core #7 Core #8 Core #9	60 1,380 1,798 2,995 3,028 3,295 3,312 3,330 3,360 3,752 3,777 3,882 3,902 4,102 4,135 4,694 4,708	4,687 1,430 1,808 3,028 3,312 3,360 3,777 3,902 4,102 4,694 4,708	Tymochtee Precambrian	4,708	1957	270-275; 370-375; 615-620; 2,720 2,725; 2,900-2,905; 3,320-3,330; 3,384-3,390; 3,480-3,484; 3,930- 3,935; 4,689-4,694	
HENRY Harrison	36	749	N. L. Stevens	#2 Jackson	175	2,303	- Black River	2,303	1957	203-345; 700-730; 855-900; 1,070- 1,090; 1,185-1,270; 1,315-1,330; 1,565-1,600; 1,615-1,650; 1,811- 1,812; 1,831-1,890; 1,975-2,110; 2,165-2,203; 2,244-2,249	
HOCKING Benton	33	738	Kewanee Oil Co.	#1 Thomas B. Amerline	0	2,648	Pottsville Cincinnati	2,648	1958	286-288; 495-505; 522-530; 2,440- 2,446; 2,586-2,591	
Falls	NE $\frac{1}{2}$ 2	741	A. W. Seabright	V. J. Wilson	916	2,934	Berea Cincinnati	2,934	1958	959-1,900; 2,619-2,629; 2,792- 2,799	
JACKSON Milton	SE $\frac{1}{2}$ 29	740	Kewanee Oil Co.	#1 F. C. Morrow, et al.	0	3,065	Pottsville Cincinnati	3,075	1958	585-591; 1,103-1,109; 1,620- 1,630; 1,878-1,888; 2,067-2,076; 2,581-2,595	
LAKE Concord	L. 18, Tr. 4	731	Diamond Alkali Co.	#201 Diamond Alkali Co.	87	3,103	Ohio shale Bass Island	3,104	1953	1,280-1,285; 2,407-2,416; 2,779-2,784; 3,070-3,076	
PORTAGE Brimfield	L. 7	735	East Ohio Gas Co. #2057	#1 C. M. Stewart	320	4,255	Cuyahoga Medina group	4,257	1957	338-342; 354-360; 436-440; 460- 470; 525-545; 942-944; 1,191- 1,196; 2,020-2,025; 2,127-2,129; 2,190-2,198; 2,294-2,297; 2,385- 2,394; 2,411-2,414; 2,438-2,450; 2,567-2,576; 2,718-2,723; 3,680- 3,692; 4,222-4,223; 4,230-4,232 1,300-1,305; 3,828-3,831; 3,989-3,995; 4,108-4,141	
Brimfield	L. 17	736	East Ohio Gas Co. #2065	#1 E. Duncan Comm.	124	4,226	Cuyahoga Medina group	4,226	1957		
SENECA Clinton	NE $\frac{1}{2}$ NE $\frac{1}{2}$ SW $\frac{1}{4}$ 7	745	Sun Oil Co.	#1 Zels	1,458	2,106	Trenton Black River	2,106	1938	1,583-2,050	
Clinton	SW $\frac{1}{4}$ NE $\frac{1}{2}$ SE $\frac{1}{4}$ 17	747	Sun Oil Co.	Jr. Order of U. A. M.	40	1,842	Bass Island Trempealeau	1,842	1938	285-290; 420-430; 435-475; 630- 1,215; 1,285-1,500; 1,525-1,535	
Clinton	NW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{2}$ 7	748	Bonawit Supply Co.	#2 A. J. West (Clouse)	20	2,065	Bass Island Trempealeau	2,065	1938	485-500	
Jackson	NW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ 22	746	Wickland Dev. Co.	#1 Sole (Hammer)	1,987	2,043	Trempealeau Trempealeau	2,043	1938	1,989-1,998	
Liberty	SW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{2}$ 28	744	Hokes, et al.	#1 Dayton Conner	1,900	1,980	- Trempealeau	-	-	1,860-1,854; 1,957-1,960; 1,963-1,965	

STARK Bethlehem	9	734	East Ohio Gas Co.	#1 H. & L. Johnston	275	4,472	Cuyahoga	Medina group	4,469	1956	405-493; 880-881; 994-1,014; 1,155-1,172; 1,182-1,189; 1,125- 1,126; 1,308-1,324; 1,357-1,368; 1,490-1,495; 1,160-1,675; 2,115- 2,135; 2,605-2,611; 2,752-2,761; 2,830-2,834; 2,989-3,007; 3,057- 3,060; 3,590-3,610; 3,707-3,890; 3,923-3,938; 3,990-4,000; 4,029- 4,039; 4,093-4,108; 4,292-4,293; 4,371-4,374
											3,250-3,263; 4,505-4,762
SUMMIT Franklin	SE $\frac{1}{4}$ 31 NE $\frac{1}{4}$ 17	730 742	Belden and Blake East Ohio Gas Co.	#1 S. & A. Kukick J. & A. Kiminecz	0 120	4,505 3,945	Pottsville Cuyahoga	Medina group Medina group	4,762 3,945	1957 1956	165-179; 185-195; 290-300; 798- 806; 1,262-1,273; 1,855-1,867; 1,876-1,885; 2,538-2,548; 2,728- 2,733; 2,883-2,893; 3,855-3,856
WAYNE Chippewa Franklin	SW $\frac{1}{4}$ 14 SE $\frac{1}{4}$ 16	733 739	East Ohio Gas Co. #2033 Preston Oil Co. #2569	#1 S. & G. Funk Comm. #1 Ell A. Graber	490 115	3,931 3,544	Cuyahoga Cuyahoga	Cincinnati Cincinnati	3,931 3,544	1956 1958	647-652; 1,310-1,318; 1,900-1,913 225-230; 1,575-1,579; 3,469-3,480

<sup>a</sup> Cooperation of the operators' in saving samples is greatly appreciated.