

**EXPERIMENTAL AIR AND WATER INJECTION
SECONDARY OIL RECOVERY PROGRAM**

OF THE

COOPERATIVE PRODUCING ASSOCIATION

CAPROCK FIELD

LEA AND CHAVES COUNTIES, NEW MEXICO

REPORT ON THE
EXPERIMENTAL AIR AND WATER INJECTION
SECONDARY OIL RECOVERY PROGRAM
OF THE COOPERATIVE PRODUCING ASSOCIATION
CAPROCK FIELD, LEA AND CHAVES COUNTIES, NEW MEXICO

Requested By:

J. O. Denton, Jr., Manager
Cooperative Producing Association
Box 978
Levelland, Texas

June 19, 1951

Prepared by:

Robert D. Fitting
Robert D. Fitting

Fitting, Fitting & Jones
Box 1637
Midland, Texas

TABLE OF CONTENTS

PAGE NO.

1. Area Map.
2. Report Discussion.
3. Summary of Field Interest.
9. Summary of Ultimate Oil Recovery Analysis.
12. Gross Pipeline Runs for 1947.
16. Gross Pipeline Runs for 1948.
20. Gross Pipeline Runs for 1949.
24. Gross Pipeline Runs for 1950.
28. Gross Pipeline Runs for 1951.
30. Air and Water Injection Record.
34. Injection Well Location Map - Caprock Field.
35. Bottom Hole Pressure Maps.
36. Production Decline Graph, Caprock Field - All Leases.
37. Production Decline Graph, Leases Adjacent to Air Input Well.
38. Graph of Daily Injected and Cumulative Air Volumes.

PRODUCTION DECLINE GRAPHS - INDIVIDUAL LEASES

39. British American Oil Producing Co. - State Lease.
40. Cities Service Oil Co. - State R Lease.
41. Cities Service Oil Co. - State T Lease.
42. Cooperative Prod. Assn. - Livermore Maxwell Lease.
43. Cooperative Prod. Assn. - Livermore Maxwell State A Lease.
44. Cooperative Prod. Assn. - Livermore Maxwell State G Lease.
45. Cooperative Prod. Assn. - Livermore Maxwell State H Lease.
46. Cooperative Prod. Assn. - Livermore Maxwell State J Lease.

TABLE OF CONTENTS
(Continued)

PAGE
NO.

- 47. Cooperative Prod. Assn. - Livermore Maxwell State K Lease.
- 48. Cooperative Prod. Assn. - Livermore State D Lease.
- 49. Cooperative Prod. Assn. - Malco Maxwell A Lease.
- 50. Cooperative Prod. Assn. - Malco Maxwell B Lease.
- 51. Cooperative Prod. Assn. - Malco Maxwell C Lease.
- 52. Cooperative Prod. Assn. - Malco Maxwell F-3 Lease.
- 53. Cooperative Prod. Assn. - Malco Maxwell F-1 Lease.
- 54. Cooperative Prod. Assn. - Malco Maxwell H Lease.
- 55. Cooperative Prod. Assn. - Maxwell State Lease.
- 56. Cooperative Prod. Assn. - McQueen Lease.
- 57. Cooperative Prod. Assn. - Ohio State Lease.
- 58. Cooperative Prod. Assn. - State E Lease.
- 59. Cooperative Prod. Assn. - Williams Lease.
- 60. Delfern Oil Co. - State A Lease.
- 61. Delfern Oil Co. - State B Lease.
- 62. Delfern Oil Co. - State C Lease.
- 63. Delfern Oil Co. - State D Lease.
- 64. Delfern Oil Co. - State E Lease.
- 65. Delfern Oil Co. - State F Lease.
- 66. Delfern Oil Co. - State G Lease.
- 67. Delfern Oil Co. - State H Lease.
- 68. Delfern Oil Co. - State J Lease.
- 69. Great Western Prod., Inc. - Maxwell State Lease.
- 70. Great Western Prod., Inc. - State L Lease.
- 71. Great Western Prod., Inc. - State M Lease.

TABLE OF CONTENTS
(Continued)

PAGE
NO.

- 72. Great Western Prod., Inc. - State W Lease.
- 73. Great Western Prod., Inc. - State C Lease.
- 74. Great Western Prod., Inc. - State P Lease.
- 75. Great Western Prod., Inc. - State Q Lease.
- 76. Great Western Prod., Inc. - State R Lease.
- 77. Great Western Prod., Inc. - State S Lease.
- 78. Gulf Oil Corp. - Chaves State Lease.
- 79. Gulf Oil Corp. - Lea State Lease.
- 80. Gulf Oil Corp. - Lea State B Lease.
- 81. Manry & Company - State A Lease (Sec. 6, 13-S, 32-E).
- 82. Manry & Company - State A Lease (Sec. 11, 13-S, 31-E)
- 83. Mid-Continent Petroleum Corp. - State "13" Lease.
- 84. Phillips Pet. Co. - Cap Lease.
- 85. Phillips Pet. Co. - Caprock Lease.
- 86. Phillips Pet. Co. - Levick Lease.
- 87. A. K. Polis - State A Lease.
- 88. A. K. Polis - State B Lease.
- 89. Resler Oil Co. - State A Lease.
- 90. Resler Oil Co. - State B Lease.
- 91. Resler Oil Co. - State C Lease.
- 92. Resler Oil Co. - State D Lease.
- 93. Resler Oil Co. - State E Lease.
- 94. Vickers Pet. Co. - Caprock State Lease.
- 95. Vickers Pet. Co. - Caprock State A Lease.
- 96. Vickers Pet. Co. - Max Osmund Lease.

TABLE OF CONTENTS
(Continued)

PAGE
NO.

- 97. Vickers Pet. Co. - Max State Lease.
- 98. Vickers Pet. Co. - State F-2 Lease.
- 99. Vickers Pet. Co. - Williams Lease.
- 100. J. C. Watson Drlg. Co. - State Lease.
- 101. Sam Williams - Williams Lease.



REPORT ON THE
EXPERIMENTAL AIR AND WATER INJECTION
SECONDARY RECOVERY PROGRAM
OF THE COOPERATIVE PRODUCING ASSOCIATION
CAPROCK FIELD, LEA AND CHAVES COUNTIES, NEW MEXICO

This is a report on the status and results of an experimental air and water injection secondary oil recovery program as installed and operated by the Cooperative Producing Association in the Caprock Field, Lea and Chaves Counties, New Mexico. This experimental air and water injection was commenced on September 25, 1950, and the injection of air has continued at an average pressure of 470 psig with a daily average injected volume of 100,000 cubic feet. Several attempts have been made to introduce water with the air, but to date this has not proved successful. Monthly bottom hole pressure, fluid level, and gas-oil ratio surveys have been conducted on the wells immediately surrounding the input well, and the gross oil pipeline runs of the offset leases have been collected and examined. The following are the general facts derived from the data obtained: Some of the leases offset to the input well have shown marked increases in oil productive ability. A definite pressure injection pattern is developing laterally from the input well. Little "bypass" of air as would be shown by measurable increases in gas-oil ratio is apparent. It is therefore concluded that the present experimental air injection has been successful and as a medium for secondary oil recovery or pressure maintenance, air has proven more than satisfactory. It is recommended that the installation of a minimum of three additional air input wells be immediately commenced and that these wells be spaced to effectively encompass the remainder of the field. The amount of increased oil recovery to result from this air injection system cannot be accurately estimated; however, an additional recovery equal to the total estimated primary oil recovery is considered probable.

Before a fieldwide pressure maintenance, or secondary oil recovery program can be successfully commenced, a formula for operator participation in the expenses and the increased oil recovery must be determined. Accordingly, a percentage participation formula premised on the ultimate oil recovery estimated to be obtainable by primary means on the individual leases as compared to the total field ultimate oil recovery has been calculated. The estimated primary oil recovery has been determined by extrapolation of the present rate of oil production decline on the individual leases to complete abandonment. The following is a brief discussion of the methods and basic facts employed in this report.

HISTORY

The Cooperative Producing Association prior to the commencement of the current experimental air injection program fostered an effort to obtain unified operator interest in a secondary oil recovery or pressure maintenance program for the Caprock Field. An operators' engineering committee was formed with the primary purpose of examining the Caprock Field Queen sand reservoir in order to determine its characteristics and acceptability to a secondary oil recovery or pressure maintenance program. This study resulted in a sizeable amount of collected data, and a concerted effort was made for its direct utilization on a fieldwide secondary oil recovery program. It was soon evident that little detailed information was available on the effective pay sand thickness, its porosity and permeability, and an insufficient number of wells had been cored and analyzed to enable a complete volumetric reservoir analysis. Several of the then current drilling wells were cable tool cored within the pay zone and these cores were analyzed as to their acceptability to various types of fluids. The use of water as an injection medium was considered reasonable, although a high degree of silt and wax was shown to be present in

some of the analyzed cores. A study was instigated to develop a water supply that would be sufficient for use in a water flooding operation. The evidence showed that a good source of surface or subsurface water could only be obtained after much expense, and considerable speculation existed as to the amount of water that would be available. Gas as a medium for injection was not considered practical because of a lack of usable supply in the area. An analysis was conducted on several typical produced gas samples from the Caprock Field and several of these samples showed to be primarily inert nitrogen and helium and would not burn. The only practical and immediately available injecting medium was therefore air. The Cooperative Producing Association, after a complete study of its probable suitability to the reservoir, attempted to promote a fieldwide experimental air injection program. Many of the operators, although agreeing in principle, lack management approval; consequently Cooperative Producing Association, after obtaining authority from the State of New Mexico, installed and equipped at their own expense an experimental air injection well.

AIR AND WATER INJECTION

In August of 1950 a compressor station was erected, a water well drilled, and the Cooperative Producing Association, Malco-Maxwell State A-2, in Section 31, Township 12 South, Range 32 East, was suitably equipped for air and water injection. This experimental air injection program was successfully commenced on September 25, 1950, and has subsequently injected an average daily volume of 100,000 cubic feet at an average pressure of 470 pounds (Page 30). A basic assumption was made prior to the installation of the air injection program that a periodic introduction of water with the air would probably create a more efficient secondary recovery "sweep", however, the injection of water has been attempted on several occasions without success (Page 38). The lack of ability of this well to accept the injection of water

is undoubtedly the result of a fine silt condition of the sand pay of the present input well, and does not in itself preclude the successful periodic introduction of air and water in other input wells.

During the entire month of February, 1950, mechanical compressor difficulties were experienced and it was found necessary to shut down the compressor station. An immediate effect of the shutdown was apparent in the Cooperative Producing Association, Malco-Maxwell State "A" and "G" leases, but little effect was noticed in wells located one-quarter to one-half mile from the input well. This fact was one of the first indications that the experimental air injection system was operating effectively.

Monthly bottom hole pressure surveys by use of a Sonolog acoustic well measurement meter have been conducted on all the wells surrounding the input well. It is evident from the enclosed pressure maps that a definite lateral pressure pattern is developing and an increase in pressure is noted on wells showing increased oil productive capacity (Page 35). A direct correlation between bottom hole pressure and fluid level is not yet apparent, although it is anticipated that in the future increases in static fluid level with pressure will be experienced. A careful study was made of the pipeline runs of the surrounding leases, and it is evident that the oil productive ability of many of the offset leases have been materially increased (Page 37). The leases actively affected are the Gulf, Lea-State and Lea-State "B", and the Manry & Company, State "A" lease in Section 6; Great Western, State "R" in Section 5; the Cooperative Producing Association "A" and "G" leases in Section 31; the Phillips, Cap-State lease and Great Western "Q" lease; and especially the Mid-Continent No. 1 "13" in Section 32.

Prior to the injection of air it was anticipated that explosive mixtures might be formed and "by-pass" of the air, when used without water, would occur at a greater than normal expected rate. A close check has been

maintained on the surrounding wells, and it is apparent that although increases in tubing and casing pressure have been noted, measurable increases in gas- or air-oil ratios have not occurred.

The increased oil production shown by the offset leases and the definite pressure pattern forming surrounding the input well plus the lack of measurable "by-pass" is considered conclusive evidence that the present experimental air injection has proven successful and practical. It is therefore recommended that a minimum of three additional injection wells be equipped to service the remainder of the field. The proposed wells are as shown on the enclosed map (Page 34), one in Section 2; one in Section 12, T-13-S, R-31-E, and an additional well in Section 7, T-13-S, R-32-E. The actual location of these future input wells has not been rigidly determined and is primarily based on the effective radial area of the present injection well. The proper placement of these injection wells may eliminate the future necessity of additional input wells; however, local sand conditions will dictate the future requirements. The present compressor facilities can undoubtedly be enlarged to service one of the additional injection wells and thereby the proposed three-well system would require only one additional compressor station.

A fieldwide secondary oil recovery or pressure maintenance program requires the determination of an equitable participation formula. The usual methods of calculating the effective reservoir volume of the individual well for a basis of participation is in this instance not practical. The data available on the oil pay zone thickness, its effectiveness or character are not considered adequate. A careful and complete study was made of the Caprock Field current and past oil production history (Pages 12 to 24). All of the leases in the field have shown for the past year an inability to produce their prorated allowable and are producing at capacity production rates. Oil

production decline graphs have been prepared on all of the leases in the field, and individual monthly oil production decline percentages for each lease has been determined (Pages 39 to 101). The average per well oil production for the first three months of 1950 have been used on each lease to derive an ultimate oil recovery by primary means through the extrapolation of this oil production rate at the current indicated decline to complete well abandonment (Pages 9 to 11). In instances where the present injection program has affected the current lease oil production decline rates, a decline rate has been determined prior to the injection and a present average oil production has been estimated from this curve. The resultant ultimate oil recoveries as calculated for the individual leases have been compiled into operators' interests and fieldwide totals. The total estimated ultimate oil recovery by primary means assignable to the leases of the individual operators has been employed in calculating the percentage interest it bears to the total field ultimate oil recovery (Page 8). This method of participation analysis is considered to result in the most equitable formula that can be determined for the Caprock Field reservoir and should be the basic participation of any cooperative or unit agreement promulgated for the field.

SUMMARY OF FIELD INTEREST
CAPROCK FIELD
LEA AND CHAVES COUNTIES, NEW MEXICO

<u>Operator</u>	<u>No. Wells</u>	<u>Number Pro- ductive Acres</u>	<u>Est. Ult. Oil Rec. by Primary Means</u>	<u>Percentage Interest in Total Field Ult.</u>	<u>Percentage of Total Wells</u>
<u>WORKING INTEREST</u>					
British-American	2	80	84,791	2.03785	1.56250
Cities Service Oil Co.	3	120	100,537	2.41629	2.34375
Cooperative Prod. Assn.	39 ¹	1560	1,425,136	34.25145	30.46875
Delfern Oil Co.	15	600	768,443	18.46862	11.71875
Great Western Prod. Inc.	17 ²	720	589,505	14.16806	13.28125
Gulf Oil Corporation	7	280	144,190	3.46544	5.46875
Manry & Company	4	160	92,089	2.21325	3.12500
Mid-Continent Pet. Corp.	1	40	23,996	0.57672	0.78125
Phillips Pet. Co.	6	240	127,746	3.07022	4.68750
Polis, A. K.	4	160	174,470	4.19318	3.12500
Resler Oil Co.	5	200	82,751	1.98882	3.90625
Vickers Pet. Corp.	19	780	404,280	9.71639	14.84375
Watson Drilg. Co.	2	80	33,341	0.80131	1.56250
Williams	<u>4</u>	<u>160</u>	<u>109,529</u>	<u>2.63240</u>	<u>3.12500</u>
TOTAL	128	5120	4,160,804 ³	100.00000	100.00000
<u>ROYALTY INTEREST</u>					
State	113	4520	478,033	91.91171	88.28125
Williams	<u>15</u>	<u>600</u>	<u>42,067</u>	<u>8.08829</u>	<u>11.71875</u>
TOTAL	128	5120	520,100 ⁴	100.00000	100.00000

¹One well currently cleaning out to complete

²One well recently abandoned.

³Excludes cumulative oil recovery of non-producing abandoned leases.

⁴Gross royalty recovery of estimated ultimate oil recovery by primary means.

SUMMARY
ULTIMATE OIL RECOVERY ANALYSIS
CAPROCK FIELD LEASES
LEA AND CHAVES COUNTIES, NEW MEXICO

<u>Operator and Lease</u>	<u>No.</u> <u>Wells</u>	<u>Monthly</u> <u>Decline</u> <u>Per Cent</u>	<u>Avg.</u> <u>Per Well</u> <u>Prod. Rate</u> <u>Last Three</u> <u>Months</u> <u>Barrels</u>	<u>Est. Fut.</u> <u>Oil Rec.</u> <u>Per Well</u> <u>Barrels</u>	<u>Est. Lease Fut.</u> <u>Oil Rec.</u> <u>Barrels</u>	<u>Cumulative</u> <u>Oil Rec.</u> <u>to 4-1-51</u> <u>Barrels</u>	<u>Est.</u> <u>Ultimate</u> <u>Oil Rec.</u> <u>Barrels</u>
<u>British American Oil Prod.</u>							
State	2	2.25	320	14,222	28,444	56,347	84,791
<u>Cities Service Oil Co.</u>							
State "R"	2	1.9	407	21,421	42,842	51,424	94,266
State "T"	1	11.1	0	0	0	6,271	6,271
Total	3			21,421	42,842	57,695	100,537
<u>Cooperative Prod. Assn.</u>							
Liv. Max	1	7.4	78	1,054	1,054	29,430	30,484
Liv. Max "A"	1	6.9	50*	725	725	25,096	25,821
Liv. Max St "G"	5	5.4	275*	5,092	25,460	210,595	236,055
Liv. Max St "H"	1	1.7	559	32,882	32,882	59,682	92,564
Liv. Max "J"	4	4.3	164	3,814	15,256	156,044	171,300
Liv. Max St "K"	2	5.4	68	1,259	2,518	32,190	34,708
Liv. St "D"	1	4.9	128*	2,612	2,612	39,826	42,438
Malco Max "A"	8**	4.65	195*	4,194	33,552	289,919	323,471
Malco Max "B"	1	7.65	0	0	0	6,620	6,620
Malco Max "C"	1	2.65	498	18,792	18,792	59,245	78,037
Malco Max "F" 3	1	4.85	36*	742	742	22,749	23,491
Malco Max "F" 1	1	4.3	710	16,511	16,511	60,335	76,846
Malco Max "H"	1	3.45	286	8,290	8,290	41,877	50,167
Max St	1	4.4	170	3,864	3,864	30,083	33,947
McQueen	1	7.5	18*	240	240	17,015	17,255
Ohio St	3	4.5	146	2,578	7,734	38,792	46,526
State "E"	1	3.75	267	7,120	7,120	44,557	51,677
Williams	4	3.2	157	4,906	19,624	64,105	83,729
Total	38			114,675	196,976	1,228,160	1,425,136
<u>Delfern Oil Co.</u>							
State "A"	1	6.15	308	5,008	5,008	47,007	52,015
State "B"	1	8.3	215	2,590	2,590	50,519	53,109
State "C"	1	5.9	100	1,695	1,695	38,561	40,256
State "D"	1	5.5	434	7,891	7,891	61,103	68,994
State "E"	2	4.9	85	1,735	3,470	45,622	49,092
State "F"	3	7.2	493	6,847	20,541	176,412	196,953
State "G"	2	10.2	579	5,676	11,352	132,253	143,605
State "H"	2	9.2	279	3,033	6,066	108,754	114,820
State "J"	2	4.4	157	3,568	7,136	42,463	49,592
Total	15			38,043	65,749	702,694	768,443

(Continued)

ULTIMATE OIL RECOVERY ANALYSIS
(Continued)

Operator and Lease	No. Wells	Monthly Decline Per Cent	Avg. Per Well Prod. Rate Last Three Months	Est. Fut. Oil Rec. Per Well Barrels	Est. Lease Fut. Oil Rec. Barrels	Cumulative Oil Rec. to 4-1-51 Barrels	Est. Ultimate Oil Rec. Barrels
Great Western Prod. Inc.							
Max St	1	1.45	870	60,000	60,000	51,417	111,417
State "L"	2	6.3	504	8,000	16,000	99,440	115,440
State "M"	2	6.55	123	1,878	3,756	68,702	72,458
State "N"	4	2.35	283	12,043	48,172	70,480	118,652
State "O"	1	9.7	0	0	0	1,922	1,922
State "P"	1	3.55	39*	1,099	1,099	3,865	4,964
State "Q"	3	5.6	318	5,679	17,037	71,889	88,926
State "R"	3	6.5	268	4,123	12,369	59,563	71,932
State "S"	1	7.4	52*	703	703	3,091	3,794
Total	18			93,525	159,136	430,369	589,505
Gulf Oil Corp.							
Chaves St	2	2.9	385	13,276	26,552	52,213	78,765
Lea St "B"	2	5.35	40*	748	2,244	15,787	18,031
Total	7	6.0	200*	3,333	6,666	40,728	47,394
Manry & Co. "A"							
Manry St	2	7.4	210*	2,838	5,676	57,257	62,933
Total	4	3.15	144	4,571	9,142	20,014	29,156
Mid-Cont. Pet. Corp.							
State "I3"	1	10.1	90*	891	891	77,271	92,089
Total	1					23,105	23,996
Phillips Pet. Co.							
Cap	1	10.2	54*	529	529	12,367	12,896
Caprock	4	5.3	322	6,075	24,300	91,184	115,484
Levick	1	1.55	507	32,710	32,710	13,380	46,090
Total	6			39,314	57,539	116,931	174,470
Polis, A. K.							
State "A"	2	8.7	142	1,632	3,264	63,308	66,572
State "B"	2	6.7	318	4,746	9,492	51,682	61,174
Total	4			6,378	12,756	114,990	127,746

(Continued)

ULTIMATE OIL RECOVERY ANALYSIS
(Continued)

Operator and Lease	No. Wells	Monthly Per Well Decline Per Cent	Avg. Per Well Prod. Rate Last Three Months Barrels	Est. Fut. Oil Rec. Per Well Barrels	Est. Lease Fut. Oil Rec. Barrels	Cumulative Oil Rec. to 4-1-51 Barrels	Est. Ultimate Oil Rec. Barrels
<u>Resler Oil Co.</u>							
State "A"	1	8.5	12*	141	141	14,559	14,700
State "B"	1	4.6	92*	2,000	2,000	16,395	18,395
State "C"	1	7.4	62	838	838	25,082	25,920
State "D"	1	3.6	32*	989	989	4,710	5,599
State "E"	1	2.5	128	5,120	5,120	13,017	18,137
Total	5			8,988	8,988	73,763	82,751
<u>Vickers Pet. Co.</u>							
Caprock St	5	4.4	75	1,705	8,525	55,668	64,193
Caprock St "A"	2	3.3	295	8,939	17,878	29,024	46,902
Max Osmund	1	2.05	204	9,951	9,951	10,161	20,112
Max St	3	7.4	179	2,419	7,257	120,422	127,679
Max St "P" 2	1	5.9	7*	119	119	1,995	2,114
Williams	7	3.0	192	6,400	44,800	98,480	143,280
Total	19			29,533	88,530	315,750	404,280
<u>Watson, J. C., Drlg. Co.</u>							
State	2	3.65	136	3,726	7,452	25,889	33,341
<u>Williams, Sam</u>							
Williams	4	2.75	187	6,800	27,200	82,329	109,529
<u>Wilson, H. L. Drlg. Co.</u>							
Continental	0	2.25	0	0	0	2,906	2,906
Grand Total	128			402,282	746,783	3,416,927	4,169,719

*Estimated production rate.
**Well #2 present air injection well.

GROSS PIPELINE RUNS FOR 1947
CAPROCK FIELD
LEA & CHAVES COUNTIES, NEW MEXICO

Operator & Lease	No. Wells on Lease	Sec., Twp. Range	January		February		March		April		May		June	
			Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well
British American Oil Prod.														
State	2	13-13-31	443	443	981	981	971	971	1505*	753	973	437	1103	552
Cities Service Oil Co.														
State R	2	17-13-31												
Cooperative Prod. Assn.														
Liv. Max.	1	36-12-31	775	775	384	384	755	755	749	749	560	560	566	566
Liv. Max A	1	1-13-31	380	380	366	366	379	379	760	760	567	567	378	378
Liv. Max G	3	31-12-32	2079	693	1472	491	2127	709	2359	786	1751	584	1668	556
Liv. Max H	1	36-12-31	376	376	373	373	380	380	761	761	575	575	568	568
Liv. Max J	4	6-13-32	1547	387	2238	559	2236	574	2268	567	2256	564	2296	574
Liv. Max K	1	7-13-32	379	379	367	367	382	382	758	758	565	565	369	369
Liv. St D	1	30-12-32	376	376	371	371	364	364	757	757	561	561	554	554
Mal Max A	6	31-12-32	2274	379	2271	379	2817	469	4577	763	3392	565	3431	572
Mal Max B	1	36-12-31	-	-	310	310	-	-	-	-	162	162	-	-
Mal Max C	1	36-12-31	385	385	387	387	386	386	744	744	556	556	384	384
Mal Max F-3	1	1-13-31	450	450	425	425	435	435	769	769	269	269	230	230
Mal Max F-1	1	36-12-31	583	583	568	568	576	576	579	579	570	570	565	565
Mal Max H	1	7-13-32	459	459	455	455	463	463	464	464	443	443	452	452
Mal St	1	12-13-31	382	382	369	369	756	756	769	769	573	573	558	558
McQueen	1	1-13-32	389	389	-	-	-	-	354	354	189	189	370	370
Ohio St	1	11-13-31	370	370	363	363	368	368	371	371	572	572	380	380
State E	1	1-13-31	363	363	352	352	368	368	750	750	714	714	375	375
Williams	3	7-13-32	387	387	383	383	384	384	353	353	570	570	566	566
Delfern Oil Co.														
State A	1	36-12-31	756	756	380	380	370	370	744	744	566	566	368	368
State B	1	1-13-31	735	735	382	382	338	338	749	749	547	547	368	368
State C	1	1-13-31	381	381	413	413	372	372	743	743	571	571	565	565
State D	1	1-13-31	382	382	385	385	373	373	759	759	560	560	546	546
State E	2	11-13-31	747	374	743	374	750	375	1533	767	1428	714	1112	556
State F	3	7-13-32	1921	640	1977	659	1922	641	1852	617	1543	514	1569	523
State G	2	1-13-31	756	378	715	358	1477	738	1459	729	1145	573	1128	564
State H	2	12-13-31	771	386	772	386	1500	750	1532	766	1123	562	1147	574
State J	2	13-13-31	-	-	364	364	378	378	741	741	567	567	555	555
Great Western Prod. Inc.														
Max St	1	12-13-31	749	749	764	764	384	384	767	767	553	553	561	561
State L	2	12-13-31	762	381	743	372	1142	571	1532	766	1126	563	1135	568
State M	2	13-12-13-31	-	-	370	370	1127*	564	1535	768	1120	560	1117	559
State N	3	18-13-31												
State O	1	12-13-31												

*New Well Completed.

FITTING, FITTING & JONES

(Continued)

GROSS PIPELINE RUNS FOR 1947
(Continued)

Operator & Lease	No. Wells on Lease	July		August		September		October		November		December		Year Total 1947	Cum. Total to 1-1-48
		Lease	Well	Lease	Well	Lease	Well	Lease	Well	Lease	Well	Lease	Well		
British American Prod. Co.															
State	2	837	413	1307	904	1339	945	1408	704	1390	945	1929	965	15,741	15,741
Cities Service Oil Co.	2			745	745	1620*	810	2549	1275	2058	1029	2572	1236	9,545	9,545
State R															
Cooperative Prod. Assn.															
Liv. Max	1	371	371	1151	1151	1156	1156	1351	1351	767	767	1142	1142	9,727	19,200
Liv. Max A	1	375	375	756	756	1151	1151	1134	1134	766	766	889	889	7,901	15,956
Liv. Max G	3	1734	595	2170	723	3325	1103	4325	1442	3456	1152	4313	1438	30,327	30,251
Liv. Max H	1	377	377	767	767	1160	1160	1346	1346	947	947	1139	1139	8,769	29,040
Liv. Max J	4	2238	560	2993	743	4202	1051	4592	1148	4141	1035	4431	1120	35,533	79,503
Liv. Max K	1	380	380	758	758	1335	1335	1302	1302	1143	1143	926	926	8,669	15,582
Liv. St D	1	373	373	743	743	731	731	747	747	925	925	1127	1127	7,838	25,869
Mal Max A	6	3022	504	3417	569	5347	891	6666	1111	5963	994	7046	1174	50,191	144,730
Mal Max B	1	-	-	-	-	190	190	192	192	193	193	-	-	1,047	5,364
Mal Max C	1	366	366	734	734	1011	1011	1520	1520	1332	1332	1098	1098	8,903	27,408
Mal Max F-3	1	215	215	-	-	677	677	1374	1374	922	922	920	920	6,686	13,006
Mal Max F-1	1	557	557	953	953	1347	1347	1737	1737	775	775	1539	1539	10,349	20,634
Mal Max H	1	462	462	881	881	1145	1145	1336	1336	906	906	913	913	8,379	15,167
Max St	1	369	369	752	752	926	926	1319	1319	956	956	1305	1305	9,034	11,914
McQueen	1	333	333	-	-	385	385	381	381	379	379	192	192	3,022	13,477
Ohio St	1	383	383	382	382	563	563	380	380	381	381	381	381	4,894	9,285
State E	1	375	375	763	763	1329	1329	1333	1333	1143	1143	1516	1516	9,381	21,553
Williams	3	335	385	570	570	950*	475	1985*	662	1513	504	2133	711	10,179	17,763
Delfern Oil Co.															
State A	1	377	377	741	741	938	938	909	909	572	572	375	375	7,096	19,249
State B	1	357	357	727	727	1322	1322	756	756	527	527	1821	1821	8,629	22,991
State C	1	375	375	734	734	1502	1502	1294	1294	1304	1304	934	934	9,193	22,760
State D	1	373	373	743	743	1540	1540	1543	1543	1720	1720	1878	1878	10,807	21,116
State E	2	763	382	1508	754	2277	1138	1716	853	1295	643	1530	765	15,407	25,980
State F	3	1767	589	1927	642	4666	1555	4357	1619	4739	1580	4862	1621	33,602	51,580
State G	2	1101	550	1466	733	3207	1604	4023	2014	2652	1326	3788	1894	22,922	39,396
State H	2	1143	572	1510	755	3140	1570	3249	1625	3179	1589	3238	1619	22,304	32,080
State J	2	365	365	1443*	724	2242	1121	2213	1106	1641	820	1867	934	12,381	12,381
Great Western Prod. Inc.															
Max St	1	374	374	752	752	1322	1322	1525	1525	1709	1709	1517	1517	10,977	13,248
State L	2	1000	500	1230	615	1990	995	3056	1528	2629	1315	3040	1520	19,385	23,212
State M	2	1001	501	1216	608	1396	698	2663	1332	1882	941	2825	1413	16,252	16,252
State N	3	539	539	358	358	1504*	752	2275	1138	1542	771	1136*	445	7,553	7,553
State O	1	357	357	-	-	381	381	-	-	188	188	191	191	1,117	1,117

*New Well Completed.

FITTING, FITTING & JONES

(Continued)

GROSS PIPELINE RUNS FOR 1947
(Continued)

Operator & Lease	No. Wells on Lease	Sec., Twp. Range	January		February		March		April		May		June	
			Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well
Gulf Oil Corp.														
Lea St	2	6-13-32	442	4.2	219	219	-	-	217	217	-	-	-	-
Chaves St	2	12-13-31												
Manry & Co.														
Manry St A	2	6-13-32											1191*	596
	2	11-13-31											190	190
Polis, A.K.														
State A														
State B														
Resler Oil Co.														
State A	1	1-13-31	444	444	446	446	353	353	413	413	616	616	441	441
State B	1	12-13-31	-	-	365	365	363	363	751	751	567	567	564	564
State C	1	12-13-31	380	380	722	722	382	382	749	749	569	569	567	567
State D	1	7-13-32	380	380	333	333	235	235	-	-	300	300	-	-
State E	1	13-13-31			447	447	438	438	613	613	639	639	561	561
Vickers Petro. Corp.														
(Formerly Malco Refg., Inc.)														
Caprock St	4	6-13-32	212	212	529*	265	642*	321	950*	317	1790	443	1779	445
		7-13-32												
Max St	3	13-12-13-31	1596*	532	1366	455	1413	471	2166	722	1715	572	1737	579
Max St F-2	1	1-13-31											212	212
Williams	5	7 & 8-13-32	962	962	950*	475	1463	732	981	491	1539*	530	1565	522
Watson Drlg. Co.														
(Formerly Cockburn, Barney)														
State	2	36-12-31											911	911
		13-13-31												
Williams, Sam														
Williams	4	7 & 8-13-32	1314*	657	1393	699	1950*	435	3084	771	2096	524	2196	549
FIELD TOTAL			26,092		27,194		31,574		43,958		36,879		36,399	
NUMBER OF WELLS			57		62		65		67		69		73	
AVERAGE PER WELL			453		439		486		656		534		505	

*New Well Completed.

GROSS PIPELINE RUNS FOR 1947
(Continued)

Operator & Lease	No. Wells on Lease	July		August		September		October		November		December		Year Total 1947	Cum. Total to 1-1-48
		Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well		
Gulf Oil Corp.															
Lea St	2	196	196	191	191	-	-	212*	106	423	212	213	106	2,113	4,031
Chaves St	2			270	270	1065	1065	1437	1437	1623*	812	3289	1645	7,734	7,734
Manry & Co.															
Manry St A	2	1264	632	1747	374	2263	1132	1676	838	979	490	1834	917	10,954	10,954
	2	215	215	-	-	214	214	647	647	636*	318	861	430	2,763	2,763
Polis, A.K.															
State A	2					2235	1118	2235	1118	2933	1467	3144	1572	10,549	10,549
State B	2									913	913	2385*	1193	3,298	3,298
Resler Oil Co.															
State A	1	416	416	838	838	378	373	629	629	446	446	224	224	6,154	10,808
State B	1	366	366	722	722	761	761	760	760	551	551	376	376	6,146	6,905
State C	1	586	586	746	746	1120	1120	1390	1390	364	364	1843	1843	9,418	9,418
State D	1	315	315	-	-	176	176	187	187	-	-	186	186	2,112	2,112
State E	1	390	390	349	349	205	205	228	228	231	231	230	230	4,331	4,331
Vickers Petro. Corp.															
(Formerly Malco Refg., Inc.)															
Caprock St		951	238	1336	459	1697	424	2153	538	984	246	1706	427	15,229	15,229
Max St	3	1362	454	2200	733	3828	1276	2821	940	4374	1458	3436	1145	23,014	33,546
Max St F-2	1	-	-	-	-	231	231	218	218	-	-	-	-	661	661
Williams	5	1683	563	1913*	479	3747	937	3632	921	2883*	577	3190	638	24,618	24,618
Watson Drlg. Co.															
(Formerly Cockburn, Barney)															
State	2	452	452	772	772	839	839	629	629	1075*	538	1076	538	6,516	6,516
Williams, Sam															
Williams	4	2156	539	2896	724	4240	1060	3264	816	-	-	1880	470	26,474	28,985
FIELD TOTAL															
NUMBER OF WELLS		33,506		49,192		81,365		89,281		74,555		90,636		621,131	1,082,411
AVERAGE PER WELL		73		76		81		83		83		90			
		459		647		1005		1076		847		1007			

*New well Completed.

GROSS PIPELINE RUNS FOR 1942

CAPROCK FIELD

LEA & CHAVEZ COUNTRIES, NEW MEXICO

Operator & Lease	No. Wells on Lease	Sec., Twp. Range	January		February		March		April		May		June	
			Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well
British American Oil Prod.														
State	2	13-13-31	1424	712	923	462	1479	739	942	471	1915	953	1412	706
Cities Service Oil Co.														
State R	2	17-13-32	1392	696	2170	1035	1739	895	1516	753	1019	510	333	169
State T	1	32-12-32												
Cooperative Prodn. Assn.														
Liv. Max	1	36-12-31	965	965	959	959	769	769	575	575	569	569	565	565
Liv. Max A	1	1-13-31	760	760	561	561	763	763	566	566	374	374	376	376
Liv. Max G	5	31-12-32	3708	1236	3834	1273	4150	1333	4075	1353	3591	1197	3914	1305
Liv. Max H	1	36-12-31	1321	1321	1035	1035	1140	1140	1142	1142	1123	1123	1322	1322
Liv. Max J	4	6-13-32	4722	1131	4125	1031	4245	1061	3723	931	3371	843	3346	837
Liv. Max K	2	7-13-32	1310	1310	936	936	753	753	1129	1129	955	955	754*	377
Liv. Max L	1	30-12-32	926	926	744	744	568	568	711	711	569	569	746	746
Liv. St D	6	31-12-32	7443	1241	5674	946	6736	1123	6235	1039	6325	1137	6041	1097
Mal Max A	1	36-12-31	134	134	-	-	133	133	-	-	136	136	-	-
Mal Max B	1	36-12-31	1560	1560	1135	1135	1152	1152	1137	1137	1325	1325	1132	1132
Mal Max C	1	36-12-31	1110	1110	873	873	1123	1123	660	660	653	653	851	851
Mal Max F-3	1	1-13-31	1144	1144	1520	1520	1146	1146	1323	1323	1335	1335	1313	1313
Mal Max F-1	1	36-12-31	1637	1637	1083	1083	372	372	895	895	373	373	1073	1073
Mal Max H	1	7-13-32	955	955	954	954	959	959	949	949	763	763	759	759
Max St	1	12-13-31	379	379	-	-	175	175	-	-	187	187	377	377
McQueen	1	1-13-31	379	379	334	334	384	384	331	331	566	566	946	946
Ohio St	3	11-13-31	1119	1119	741	741	1119	1119	1102	1102	1113	1113	1237	1237
State E	1	1-13-31	1119	1119	741	741	1119	1119	1102	1102	1113	1113	1237	1237
Williams	4	7-13-32	2506	627	1898	475	1399	475	1531	383	1719	430	1707	427
Delfern Oil Co.														
State A	1	36-12-31	131	131	139	139	1123	1123	930	930	1124	1124	1492	1492
State B	1	1-13-31	1492	1492	1123	1123	1324	1324	929	929	934	934	934	934
State C	1	1-13-31	754	754	554	554	937	937	925	925	753	753	754	754
State D	1	1-13-31	1520	1520	1319	1319	1321	1321	1299	1299	1322	1322	1279	1279
State E	2	11-13-31	1479	739	1126	563	1115	553	1121	560	1127	564	933	467
State F	3	7-13-32	4396	1632	3876	1292	4139	1396	4144	1351	3380	1127	3857	1286
State G	2	1-13-31	2334	1417	2644	1322	2525	1413	2634	1302	2625	1313	2463	1234
State H	2	12-13-31	3070	1535	2604	1302	2725	1363	2636	1315	2629	1315	2476	1238
State J	2	13-13-31	1454	727	1312	656	1650	825	1311	656	1505	753	1316	653
Great Western Prod., Inc.														
Max St	1	12-13-31	1886	1826	1543	1543	1340	1340	1337	1337	1341	1341	1338	1338
State L	2	12-13-31	2098	1049	2455	1227	2735	1393	2432	1241	2651	1326	2073	1037
State M	2	12-13-31	3033	1516	3163	1582	2821	1410	2434	1242	2639	1319	1877	939
State N	4	13-13-32	755	252	1523	508	2105	702	2684*	671	2291	573	2354	589

*New Well Completed.

FITTING, FITTING & JONES

(Continued)

GROSS PIPELINE RUNS FOR 1943
(Continued)

Operator & Lease	No. Wells on Lease	July		August		September		October		November		December		Year Total 1943	Cum. Total to 1-1-49
		Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well		
British American Oil Prod.															
State	2	1441	720	1400	700	476	243	1423	714	1442	721	1463	732	15,755	31,496
Cities Service Oil Co.															
State R	2	1073	536	942	471	1129	565	1434	742	1255	623	935	453	15,042	24,537
State T	1					660	660	791	791	634	634	632	632	2,817	2,317
Cooperative Prodn. Assn.															
Liv. Max	1	565	565	565	565	392	392	133	133	372	373	379	379	6,359	26,059
Liv. Max A	1	373	373	-	-	367	367	139	139	376	376	373	373	5,033	21,039
Liv. Max G	5	3732	1246	4910	1637	3393	1274	5271	1760	4452	1117*	5235	1059	50,347	131,093
Liv. Max H	1	1239	1239	1129	1129	753	753	949	949	572	572	963	963	12,764	41,804
Liv. Max J	4	2625	656	2229	557	2032	521	1506	376	2273	562	1338	472	36,135	115,638
Liv. Max K	2	939	439	566	233	757	379	570	235	575	283	564	232	7,213	25,395
Liv. St D	1	553	553	562	562	556	556	572	572	561	561	330	330	7,443	33,317
Mal Max A	6	6580	1097	4346	724	3602	600	3814	636	3464	577	4709	802	65,569	210,299
Mal Max B	1	193	193	-	-	-	-	-	-	174	174	-	-	925	6,239
Mal Max C	1	1329	1329	1131	1131	751	751	563	563	-	-	565	565	11,735	39,193
Mal Max F-3	1	423	423	634	634	633	633	438	438	666	666	414	414	8,433	21,489
Mal Max F-1	1	1322	1322	1326	1326	1328	1323	1309	1309	1341	1341	1133	1133	15,545	36,229
Mal Max H	1	371	371	216	216	624	624	647	647	230	230	671	671	9,752	24,919
Max St	1	757	757	570	570	566	566	194	194	763	763	770	770	8,959	20,373
McQueen	1	137	137	139	139	176	176	-	-	190	190	191	191	2,051	15,528
Ohio St	3	939	939	1132	1132	1326	1326	1330	1330	1344*	442	1352	450	10,463	19,743
State E	1	1110	1110	1111	1111	556	556	552	552	565	565	137	137	10,562	32,115
Williams	4	1399	475	1712	428	1528	382	1516	379	1532	383	1544	386	20,991	38,754
Delfern Oil Co.															
State A	1	1119	1119	1111	1111	1122	1122	1124	1124	941	941	1134	1134	11,540	30,739
State B	1	747	747	742	742	744	744	538	538	761	761	567	567	10,870	33,361
State C	1	557	567	743	743	553	553	376	376	753	753	731	731	8,410	31,170
State D	1	1323	1323	1309	1309	1322	1322	1334	1334	1101	1101	1124	1124	15,578	36,594
State E	2	746	373	752	376	566	233	741	370	382	191	561	230	10,649	36,629
State F	3	4024	1341	3837	1279	3375	1125	2370	957	2909	970	2923	976	44,235	95,365
State G	2	2731	1390	2650	1325	2635	1317	2349	1425	2672	1338	2611	1306	32,201	71,597
State H	2	2635	1317	2307	1400	2453	1229	2457	1223	1707	854	1712	356	29,910	61,990
State J	2	1432	741	1476	733	1125	563	1692	346	1292	646	1313	657	16,923	29,309
Great Western Prod., Inc.															
Max St	1	1327	1327	1326	1326	1310	1310	1336	1336	1335	1335	1349	1349	16,773	30,021
State L	2	2232	1141	1720	860	2116	1053	1677	339	1336	668	964	432	24,639	47,351
State M	2	2220	1110	2254	1127	1905	953	1383	942	1138	569	1149	575	26,566	42,813
State N	4	2641	660	2087	522	2457	614	2294	573	1912	473	2282	571	25,385	32,938

(Continued)

*New Well Completed.

GROSS PIPELINE RUNS FOR 1943
(Continued)

Operator & Lease	No. Wells on Lease	Sec.,Twp. Range	January		February		March		April		May		June	
			Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well
<u>Great Western Prod. Inc.</u>														
State P	1	2-13-31	-		483	483	344	324	316	316	325	325	158	158
State O	1	12-13-31	-		-	-	188	188	-	-	185	185	-	-
State Q	2	32-12-32											1300*	650
State R	2	5-21-32											270	270
		5-13-32												
<u>Gulf Oil Corp.</u>														
Lea St	3	6-13-32	27	13	382	191	855*	285	882	294	453	151	850	283
Lea St B	2	6-13-32												
Chaves St	2	12-13-31	2436	1218	2260	1130	2633	1316	2204	1102	2657	1329	2379	1189
<u>Manry & Co.</u>														
Manry St A	2	6-13-32	1271	636	2126	1063	1698	849	1689	845	1854	927	1679	839
Manry St A	2	11-13-31	1276	638	643	324	850	425	426	213	640	320	217	108
<u>Mid-Continent Pet. Corp.</u>														
State "13"	1	32-12-32							757	757	1699	1699	1309	1309
<u>Phillips Petro. Co.</u>														
Cap	1	32-12-32												
Caprock	4	32-12-32												
<u>Polis, A.K.</u>														
State A	2	12-13-31	3125	1563	2870	1435	2852	1426	2335	1168	2767	1384	2417	1208
State B	2	1-13-31	2830	1415	2165	1083	2333	1167	2159	1079	1515	758	1543	774
<u>Resler Oil Co. (Formerly Page, Henry)</u>														
State A	1	1-13-31	461	461	233	233	433	433	226	226	219	219	229	229
State B	1	12-13-31	378	378	578	578	190	190	570	570	188	188	758	758
State C	1	12-13-31	1287	1287	1428	1428	1390	1390	1313	1313	752	752	367	367
State D	1	7-13-32	-	-	184	184	-	-	184	184	-	-	-	-
State E	1	13-13-31	226	226	221	221	-	-	229	229	-	-	227	227
<u>Vickers Pet. Corp. (Formerly Malco Refg., Inc.)</u>														
Caprock St	5	6 & 7-13-32	1381	345	1775	444	956	239	1603	401	954	239	698	175
Caprock St A	2	7 & 18-13-32												
Max Osmund	1	13-13-32											408	408
Max St	3	12&13-13-31	4896	1632	4670	1557	3913	1304	3887	1296	4342	1447	3356	1119
Max St F-2	1	1-13-31	171	171	155	155	-	-	207	207	-	-	-	-
Williams	7	7 & 8-13-32	2827	565	2738	548	2379	476	2413	483	2401	480	2790*	399
<u>Watson, J.C. Drilg. Co. (Formerly Cockburn, Barney)</u>														
State	2	36-12-31	1114	557	1099	549	657	329	660	330	857	429	438	219
		13-13-31												
<u>Williams, Sam</u>														
Williams	4	7 & 8-13-32	2444	611	1948	487	2412	603	1952	488	1952	488	1956	489
<u>FIELD TOTAL</u>														
NUMBER OF WELLS			86,546		79,008		81,742		77,430		77,111		74,769	
AVERAGE PER WELL			94		95		97		98		98		105	
			921		832		843		791		787		712	

*New Well Completed.
PUTTING, FITTING & JONES

(Continued)

GROSS PIPELINE RUNS FOR 1948
(Continued)

Operator & Lease		No. Wells on Lease	July		August		September		October		November		December		Year Total 1948	Cum. Total to 1-1-49
			Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well		
Great Western Prod., Inc.																
State P		1	162	162	-	-	166	166	167	167	152	152	-	-	2,253	2,253
State O		1	-	182	182	182	-	-	-	-	-	-	-	-	555	1,672
State Q		2	2416	1208	3136	1568	2595	1298	2783	1394	2498	1249	2693	1346	17,426	17,426
State R		2	1555	1555	1309	1309	1328	1328	-	-	2508	1254	2987	1494	9,957	9,957
Gulf Oil Corp.																
Lea St		3	634	211	451	150	857	286	1052	351	-	-	897	299	7,340	11,371
Lea St B		2	1331	1331	1390	1390	1360	1360	1350	1350	2232*	1116	3120	1560	10,783	10,783
Chaves St		2	1397	949	1103	552	876	438	872	436	452	226	876	438	20,645	28,379
Henry & Co.																
State A		2	1699	849	1347	674	1534	767	1697	849	1047	524	1108	554	18,749	29,703
State A		2	641	320	619	309	427	214	427	214	631	315	441	221	7,243	10,006
Mid-Continent Pet. Co.																
State #13*		1	1489	1489	1315	1315	756	756	1321	1321	1147	1147	1144	1144	10,937	10,937
Phillips Petro. Co.																
Cap		1	-	379	379	379	1258	1258	1295	1295	1346	1346	758	758	5,036	5,036
Caprock		4	753	753	1300	1300	1113	1113	3931*	1310	4168	1389	5257*	1752	16,522	16,522
Polis, A.K.																
State A		2	2224	1112	1731	866	1516	758	1015	508	897	449	843	424	24,597	35,146
State B		2	1315	658	1314	657	1315	658	887	444	1076	538	1092	546	19,549	22,847
Resler Oil Co.																
(Formerly Page, Henry)																
State A		1	221	221	-	-	215	215	209	209	-	-	228	228	2,674	13,432
State B		1	561	561	569	569	372	372	377	377	380	380	190	190	5,111	12,016
State C		1	556	556	737	737	372	372	749	749	377	377	566	566	9,894	19,312
State D		1	190	190	186	186	-	-	186	186	-	-	-	-	930	3,042
State E		1	428	428	439	439	430	430	217	217	448	448	224	224	3,089	7,420
Vickers Pet. Corp.																
(Formerly Malco Refg. Inc.)																
Caprock St		5	1934*	387	2139	428	1928	386	1925	385	1681	336	1457	291	18,431	33,660
Max Osmund		1	649	649	423	423	424	424	634	634	213	213	429	429	3,180	3,180
Max St		3	3863	1288	3865	1288	2617	872	3425	1142	2936	979	2450	817	44,520	78,066
Max St F-2		1	-	219	219	219	-	-	-	-	-	-	-	-	752	1,413
Caprock St A		2	857	857	853	853	858	858	645	645	861	861	868*	434	4,942	4,942
Williams		7	2966	424	3012	430	2519	360	2051	293	2558	366	2322	332	30,576	55,594
Watson, J.C. Drilg. Co.																
State		2	879	440	853	427	441	220	832	441	434	217	438	219	8,752	15,268
Williams, Sam																
Williams		4	2224	556	1864	466	1944	486	1948	487	1456	364	1944	486	24,044	53,029
FIELD TOTAL																
			83,519		78,213		71,359		74,577		70,598		75,330		930,269	2,012,680
			109		110		110		112		117		120			
			766		711		649		666		603		628			
			(Continued)													

(Continued)

GROSS PIPELINE RUMS FOR 1942
CAPROCK FIELD
LEA & CHARLES COUNTIES, NEW MEXICO

Operator & Lease	No. Wells on Lease	Sec., Twp. Range	January		February		March		April		May		June	
			Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well
British American Oil Prod.														
State	2	13-13-31	1402	701	216	458	1459	720	1961	931	1441	720	1439	719
Cities Service Oil Co.														
State K	2	17-13-32	133	69	457	228	1121	561	1328	694	1459	730	1394	547
State T	1	32-13-32	445	445	224	224	454	454	432	432	216	216	226	226
Cooperative Prodn. Assn.														
Liv. Max	1	36-12-31	159	159	195	195	334	334	193	193	180	180	130	130
Liv. Max A	1	1-13-31	330	330	376	376	332	332	130	130	377	377	190	190
Liv. Max G	5	31-12-32	5209	1242	4543	913	4213	244	4324	277	3905	731	2573	715
Liv. Max H	1	36-12-31	730	730	575	575	576	576	330	330	191	191	191	191
Liv. Max J	4	6-13-32	1571	413	1142	285	1713	423	2308	577	1732	427	1977	427
Liv. Max K	2	7-13-32	362	131	569	234	310	190	376	131	331	131	541	270
Liv. St D	1	30-12-32	562	562	137	137	334	334	379	379	555	555	368	368
Mal Max A	3	31-12-32	4479	640	3542	506	4115	583	4425	632	3647	531	4202*	525
Mal Max B	1	36-12-31	-	-	-	-	-	-	1151	1151	192	192	-	-
Mal Max C	1	36-12-31	959	959	959	959	1333	1333	1151	1151	1336	1336	1142	1142
Mal Max F-3	1	1-13-31	-	-	-	-	223	223	-	-	216	216	-	-
Mal Max F-1	1	36-12-31	753	753	1296	1296	560	560	190	190	331	331	373	373
Mal Max H	1	7-13-32	1261	1261	1321	1321	1322	1322	1345	1345	1114	1114	370	370
Max St	1	12-13-31	734	734	754	754	763	763	576	576	569	569	571	571
McQueen	1	1-13-31	192	192	-	-	162	162	-	-	192	192	-	-
Ohio St	3	11-13-31	1265	422	1035	345	923	309	957	313	1123	374	946	315
State E	1	1-13-31	-	-	559	559	753	753	940	940	754	754	754	754
Williams	4	7-13-32	1545	386	1249	312	1455	371	1154	289	1359	333	963	241
Delfern Oil Co.														
State A	1	36-12-31	1141	1141	936	936	733	733	563	563	1305	1305	1116	1116
State B	1	1-13-31	523	523	930	930	1478	1478	1137	1137	1291	1291	932	932
State C	1	1-13-31	556	556	546	546	752	752	130	130	566	566	331	331
State D	1	1-13-31	765	765	1516	1516	1436	1436	1138	1138	1506	1506	1320	1320
State E	2	11-13-31	544	272	569	285	373	189	374	137	535	268	371	186
State F	3	7-13-32	2394	798	3220	1073	4730	1593	3318	1273	4262	1423	3904	1301
State G	2	1-13-31	1892	946	2383	1192	2912	1456	2470	1235	2846	1423	2649	1325
State H	2	12-13-31	1503	752	3113	1557	2313	1499	2637	1318	2826	1413	2803	1402
State J	2	13-13-31	719	359	743	374	930	465	377	189	717	358	533	267
Great Western Prod., Inc.														
Max St	1	12-13-31	760	760	373	373	577	577	1147	1147	1153	1153	1149	1149
State L	2	12-13-31	1721	860	1909	955	1909	955	2436	1243	2871	1436	2270	1135
State M	2	13-13-31	1534	767	2227	1114	1334	667	3051	1526	2107	1053	2432	1241
State N	4	13-13-32	1516	379	1699	425	2343	586	1753	438	1933	483	1737	434
State O	1	12-13-31	-	-	250	250	-	-	-	-	-	-	-	-
State P	1	2-13-31	-	-	163	163	-	-	-	-	167	167	-	-
State Q	3	32-12-32	2597	1298	2355	954	3713	1233	3329	1276	4163	1389	3369	1123
*New Well Completed.														
(Continued)														

(Continued)

GROSS PIPELINE RUNS FOR 1949
(Continued)

<u>Operator & Lease</u>	<u>No. Wells on Lease</u>	<u>July</u>		<u>August</u>		<u>September</u>		<u>October</u>		<u>November</u>		<u>December</u>		<u>Year Total 1949</u>	<u>Cum. Total to 1-1-50</u>
		<u>Lease</u>	<u>Well</u>	<u>Lease</u>	<u>Well</u>	<u>Lease</u>	<u>Well</u>	<u>Lease</u>	<u>Well</u>	<u>Lease</u>	<u>Well</u>	<u>Lease</u>	<u>Well</u>		
<u>British American Oil Prod.</u>															
State	2	1416	708	1451	725	953	476	953	479	836	443	977	438	15,259	46,755
<u>Cities Service Oil Co.</u>															
State R	2	1504	752	752	376	1131	566	1126	563	1133	567	961	430	12,264	36,851
State T	1	223	223	226	226	226	226	-	-	215	215	-	-	2,337	5,704
<u>Cooperative Prodn. Assn.</u>															
Liv. Max	1	193	193	194	194	186	186	-	-	192	192	-	-	2,105	28,164
Liv. Max A	1	191	191	183	183	189	189	-	-	189	189	190	190	2,342	23,881
Liv. Max G	5	3150	630	3264	654	3235	647	3020	604	2667	533	2306	461	43,479	174,577
Liv. Max H	1	382	382	187	187	544	544	191	191	953	953	1323	1323	6,221	43,025
Liv. Max J	4	1536	384	1147	287	1501	375	2683	671	3222	805	2077	519	22,415	133,053
Liv. Max K	2	378	189	188	94	380	190	190	95	379	190	189	95	4,313	29,708
Liv. St D	1	192	192	368	368	182	182	375	375	367	367	184	184	4,103	37,420
Mal Max A	8	3620	453	3263	408	3061	383	3629	454	3408	426	3418	427	44,309	255,108
Mal Max B	1	-	-	-	-	-	-	-	-	-	-	-	-	192	6,431
Mal Max C	1	951	951	960	960	943	943	958	958	762	762	379	379	11,833	51,026
Mal Max F-3	1	-	-	208	208	-	-	-	-	224	224	-	-	871	22,360
Mal Max F-1	1	570	570	382	382	1135	1135	1299	1299	1336	1336	1525	1525	9,810	46,039
Mal Max H	1	624	624	879	879	652	652	651	651	444	444	662	662	11,145	36,064
Max St	1	192	192	567	567	380	380	384	384	192	192	187	187	5,869	26,742
McQueen	1	194	194	-	-	181	181	-	-	-	-	-	-	921	16,449
Ohio St	3	949	316	762	254	758	253	771	257	574	191	574	191	10,642	30,390
State E	1	753	753	565	565	556	556	749	749	564	564	562	562	7,509	39,624
Williams	4	1154	289	1157	289	1317	329	970	243	1146	237	775	194	14,265	53,019
<u>Delfern Oil Co.</u>															
State A	1	742	742	751	751	757	757	753	753	571	571	760	760	10,133	40,922
State B	1	944	944	756	756	757	757	765	765	757	757	761	761	11,031	44,892
State C	1	373	378	375	375	139	139	561	561	372	372	191	191	5,047	36,217
State D	1	1139	1139	1328	1328	1140	1140	1322	1322	1150	1150	1341	1341	15,151	51,845
State E	2	373	187	549	275	372	186	384	192	353	179	379	189	5,186	41,815
State F	3	3858	1286	3654	1218	3413	1138	3897	1299	3897	1299	3854	1285	44,957	140,822
State G	2	2443	1222	2474	1237	2440	1220	2684	1342	2490	1245	2679	1339	30,362	101,959
State H	2	2440	1220	2406	1203	2425	1212	2456	1228	2605	1303	2643	1322	30,675	92,665
State J	2	532	266	187	94	670	335	349	175	568	234	459	229	6,789	36,098
<u>Great Western Prod., Inc.</u>															
Max St	1	1151	1151	750	750	576	576	773	773	772	772	770	770	9,956	39,977
State L	2	2435	1243	1918	959	1702	851	2475	1238	2028	1014	2096	1043	25,870	73,721
State M	2	2663	1332	1867	934	1697	848	748	372	354	177	1151	576	21,215	64,033
State N	4	1536	384	1530	383	1162	291	1543	386	1536	384	1544	386	19,832	52,770
State O	1	-	-	-	-	-	-	-	-	-	-	-	-	1,922	1,922
State P	1	161	161	-	-	-	-	-	-	164	164	-	-	822	3,075
State Q	3	3189	1063	2710	903	2476	825	2311	770	2015	672	2193	731	35,425	52,851

(Continued)

GROSS PIPELINE RUNS FOR 1949
(Continued)

Operator & Lease	No. Wells on Lease	Sec., Twp., Range	January		February		March		April		May		June	
			Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well
Great Western Prod., Inc. (Contd.)														
State R	3	5-13-32	2970	1435	2329	776	4200	1400	3524	1175	3728	1243	4051	1350
State S	1	5-13-32							444	444	226	226	226	226
Gulf Oil Corp.														
Lea St	3	6-13-32	396	132	856	285	460	153	429	143	435	145	430	143
Lea St B	2	6-13-32	2832	1401	2564	1282	2377	1439	2428	1214	1065	533	851	426
Chaves St	2	12-13-31	1221	611	1285	643	1267	634	819	410	1074	537	1273	637
Mann & Co.														
Mann St A	2	6-13-32	841	420	1057	529	1782	891	1317	653	1014	507	1094	547
Mann St A	2	11-13-31	211	106	425	212	649	325	426	213	213	106	641	321
Mid-Continent Pet. Corp.														
State "13"	1	32-13-32	1004	1004	944	944	950	950	953	953	755	755	942	942
Phillips Pet. Co.														
Cap	1	32-12-32	739	739	767	767	762	762	381	381	573	573	381	381
Caprock	4	32-12-32	5454	1363	5153	1288	5508	1377	4945	1236	5542	1385	5071	1268
Levick	1	14-13-31					756	756	713	713	911	911	576	576
Polis, A. K.														
State A	2	12-13-31	1516	758	1554	777	2260	1130	2317	1158	2823	1412	2556	1278
State B	2	1-13-31	874	437	830	440	384	442	856	428	1096	543	2235	1118
Resler Oil Co.														
State A	1	1-13-31	-	-	225	225	-	-	194	194	-	-	-	-
State B	1	12-13-31	384	384	192	192	387	387	191	191	186	186	191	191
State C	1	12-13-31	704	704	378	378	380	380	375	375	-	-	187	187
State D	1	7-13-32	187	187	190	190	-	-	169	169	-	-	-	-
State E	1	13-13-31	435	435	212	212	221	221	444	444	222	222	200	200
Vickers Pet. Co.														
Caprock St	5	6 & 7-13-32	1450	290	964	193	1688	338	980	196	1465	293	1192	238
Caprock St A	2	18-13-32	1143	572	1580	790	1522	761	1312	656	1306	653	1077	539
Caprock St B	1	29-12-32	Temporarily abandoned											
Max Osmond	3	13-13-31	382	382	432	432	430	430	213	213	425	425	214	214
Max St	3	12-13-31	1472	491	481	160	1461	487	1931	644	1912	637	1918	639
Max St F-2	1	1-13-31	-	-	220	220	-	-	-	-	-	-	-	-
Williams	7	7 & 8-13-32	2076	297	1789	256	2322	332	2073	296	2094	299	1611	230
Watson, J. C. Drilg. Co. (Formerly Cockburn, Barney)														
State	2	36-12-31	-	-	1035	513	423	212	678	339	226	113	655	328
		13-13-31												
Williams, Sam														
Williams	4	18-13-32	1452	363	1460	365	1420	355	1454	366	1382	346	1424	356
Wilson, H. L. Drilg. Co.														
Continental	1	19-13-32	-	-	346	346	-	-	134	184	136	186	-	-
FIELD TOTAL														
NUMBER OF WELLS			68,179		70,662		81,639		77,443		77,919		73,357	
AVERAGE PER WELL			124		126		127		128		128		129	
			550		561		643		605		609		569	
(Continued)														

GROSS PIPELINE RUNS FOR 1949
(Continued)

Operator & Lease	No. Wells on Lease	July		August		September		October		November		December		Year Total 1949	Cum. Total to 1-1-50
		Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well		
Great Western Prod., Inc.															
State R	3	3038	1013	2676	892	2360	787	2019	673	1680	560	1831	610	34,406	44,363
State S	1	225	225	228	228	221	221	-	-	219	219	-	-	1,789	1,789
Gulf Oil Corp.															
Lea St	3	419	140	423	141	410	137	-	-	158	53	-	-	4,416	15,787
Lea St B	2	1486	743	1061	531	857	428	1012	506	832	416	1043	522	18,878	29,661
Chaves St	2	835	418	964	482	1237	644	1043	522	400	200	-	-	11,468	39,847
Manry & Co.															
Manry St A	2	2393	1197	2163	1082	1703	352	1278	639	857	429	1071	536	16,570	46,273
Manry St A	2	395	198	439	219	430	215	648	324	419	210	422	211	5,318	15,324
Mid-Continent Pet. Corp.															
State "13"	1	756	756	570	570	756	756	572	573	380	380	379	379	8,962	19,899
Phillips Pet. Co.															
Cap	1	383	383	192	192	193	193	191	191	192	192	381	381	5,155	10,191
Caprock	4	4063	1016	2452	613	4119	1030	3179	795	2079	520	2628	657	50,193	66,715
Levick	1	571	571	554	554	559	559	383	383	385	385	540	540	5,948	5,948
Polis, A. K.															
State A	2	2640	1320	1076	538	1305	653	1270	635	1047	548	1308	654	21,722	56,868
State B	2	2461	1231	1322	661	2204	1102	2374	1187	1547	774	1957	978	18,690	41,537
Resler Oil Co.															
State A	1	-	-	226	226	-	-	-	-	-	-	220	220	864	14,347
State B	1	188	188	190	190	382	382	181	181	193	193	-	-	2,665	14,681
State C	1	368	368	372	372	374	374	189	189	384	384	191	191	3,902	23,214
State D	1	185	185	-	-	191	191	-	-	-	-	192	192	1,114	4,156
State E	1	225	225	225	225	225	225	227	227	452	452	212	212	3,300	10,720
Vickers Pet. Co.															
Caprock St	5	961	192	974	195	482	96	1176	235	976	195	959	192	12,771	46,431
Caprock St A	2	1300	650	1073	537	1062	531	866	433	871	436	869	435	13,981	18,923
Caprock St B	1	-	-	-	-	-	-	-	-	-	-	-	-	0	0
Max Osmund	1	206	206	424	424	218	218	215	215	215	215	220	220	3,594	3,774
Max St	3	2867	956	2410	803	2911	970	2892	964	2439	813	2899	966	25,593	103,659
Max St F-2	1	-	-	-	-	-	-	-	-	207	207	-	-	427	1,840
Williams	7	1620	231	1826	261	1614	231	1852	265	1623	232	1591	227	22,081	77,675
Watson, J.C. Drilg. Co. (Formerly Cockburn, Barney)															
State	2	653	327	229	115	659	329	430	215	216	108	675	338	5,879	21,147
Williams, Sam															
Williams	4	1344	336	980	245	1464	366	976	244	1404	351	992	248	15,762	68,791
Wilson, H.L. Drilg. Co.															
Continental	1	183	183	181	181	-	-	184	184	187	187	-	-	1,451	1,451
FIELD TOTAL															
NUMBER OF WELLS		71,971		61,193		63,272		62,123		57,902		57,690		823,355	2,836,035
AVERAGE PER WELL		558		474		490		482		449		447			

GROSS PIPELINE RUNS FOR 1950
CAPROCK FIELD
LEA & CHAVES COUNTIES, NEW MEXICO

Operator & Lease	No. Wells on Lease	Sec.,Twp. Range	January		February		March		April		May		June	
			Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well
British American Oil Prod.														
State	2	13-13-31	974	487	492	246	965	482	478	239	937	468	478	239
Cities Service Oil Co.														
State R	2	17-13-32	1136	568	1139	569	1133	566	1130	565	1116	553	1131	565
State T	1	32-13-32	222	222	-	-	-	-	221	221	-	-	-	-
Cooperative Prod. Assn.														
Liv. Max	1	36-12-31	190	190	179	179	-	188	175	175	-	-	-	168
Liv. Max A	1	1-13-31	190	190	-	-	3197	639	3173	636	2956	591	2441	488
Liv. Max G	5	31-12-32	3102	620	3371	674	1290	1290	762	762	753	753	752	752
Liv. Max H	1	36-12-31	1338	1338	1334	1334	1681	420	1700	425	1599	400	1317	329
Liv. Max J	4	6-13-32	2086	521	1693	423	343	172	186	93	187	93	187	93
Liv. Max K	2	7-13-32	189	95	187	94	139	139	336	336	181	181	160	160
Liv. St D	1	30-12-32	-	-	177	177	3585	448	3185	398	2834	354	2256	282
Mal Max A	8	31-12-32	2682	335	3425	428	-	-	-	-	-	-	-	-
Mal Max B	1	36-12-31	-	-	139	139	379	379	1136	1136	730	730	557	557
Mal Max C	1	36-12-31	385	385	384	384	-	-	-	-	-	-	203	203
Mal Max F-3	1	1-13-31	-	-	186	186	-	-	-	-	-	-	951	951
Mal Max F-1	1	36-12-31	1138	1138	944	944	1292	1292	1108	1108	1314	1314	448	448
Mal Max H	1	7-13-32	436	436	462	462	411	411	444	444	445	445	188	188
Max St	1	12-13-31	381	381	189	189	382	382	193	193	382	382	164	164
McQueen	1	1-13-31	191	191	-	-	-	-	-	-	-	-	553	553
Ohio St	3	11-13-31	762	254	767	256	745	248	569	190	572	191	370	370
State E	1	1-13-31	557	557	373	373	376	376	373	373	361	361	747	747
Williams	4	7-13-32	963	241	770	193	957	239	770	193	776	194	-	-
Delfern Oil Co.														
State A	1	36-12-31	757	757	740	740	566	566	506	506	519	519	374	374
State B	1	1-13-31	744	744	566	566	564	564	503	503	510	510	376	376
State C	1	1-13-31	379	379	189	189	192	192	189	189	182	182	184	184
State D	1	1-13-31	956	956	913	913	556	556	752	752	571	571	567	567
State E	2	11-13-31	357	178	298	149	333	167	189	95	365	182	192	96
State F	3	7-13-32	3921	1307	3881	1294	3839	1279	2799	933	2881	994	2206	735
State G	2	1-13-31	2674	1337	2656	1328	2588	1294	2585	1293	2441	1220	2644	1322
State H	2	12-13-31	2642	1321	2065	1033	1691	845	1689	845	1498	749	643	322
State J	2	13-13-31	556	278	522	261	375	187	376	188	569	285	370	185
Great Western Prod. Inc.														
Max St	1	12-13-31	961	961	932	932	962	962	955	955	958	958	767	767
State L	2	12-13-31	2684	1342	2480	1240	2689	1345	2297	1148	1914	957	1600	845
State M	2	12-13-31	379	189	373	189	386	193	376	188	193	97	376	188
State N	4	13-13-32	1536	384	1536	384	1162	291	1159	280	1356	339	1075	269
State O	1	12-13-31	-	-	-	-	-	-	-	-	-	-	-	-
State P	1	2-13-31	-	-	-	-	159	159	164	164	-	-	-	-
State Q	3	32-13-32	2019	673	1517	506	2012	671	1352	617	1344	448	966	322
State R	3	5-13-32	1510	503	1504	501	1413	471	1342	447	1182	394	1007	336
State S	1	5-13-32	215	215	-	-	231	231	-	-	220	220	-	-

(Continued)

GROSS PIPELINE RUNS FOR 1950
(Continued)

Operator & Lease	No. Wells on Lease	July		August		September		October		November		December		Year Total 1950	Cum. Total to 1-1-51
		Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well		
British American Oil Prod.															
State	2	455	243	469	235	478	239	957	473	474	237	487	244	7,375	54,430
Cities Service Oil Co.															
State R	2	1109	555	1067	534	369	185	934	467	750	375	1113	559	12,132	48,983
State T	1	-	-	-	-	-	-	124	124	-	-	-	-	567	6,271
Cooperative Prod. Assn.															
Liv. Max	1	190	190	-	-	133	133	-	-	116	116	-	-	1,033	29,197
Liv. Max A	1	-	-	141	141	-	-	126	126	-	-	122	122	1,110	24,991
Liv. Max G	5	2454	491	2275	455	1523	305	1862	372	2027	405	2202	440	30,538	205,165
Liv. Max H	1	757	757	711	711	373	373	570	570	760	760	570	570	9,980	53,005
Liv. Max J	4	1274	319	1036	259	917	229	932	233	844	211	944	234	16,023	154,076
Liv. Max K	2	186	93	156	78	-	-	137	94	140	70	127	64	2,975	31,783
Liv. St D	1	131	131	139	139	131	131	130	130	153	153	-	-	1,332	39,302
Mal Max A	3	2091	261	1827*	261	2092	299	2063	295	2077	297	1835	269	30,002	285,119
Mal Max B	1	-	-	-	-	-	-	-	-	-	-	-	-	139	6,620
Mal Max C	1	714	714	363	363	379	379	373	373	743	743	567	567	6,725	57,751
Mal Max F-J	1	-	-	740	740	945	945	947	947	740	740	745	745	339	22,749
Mal Max F-I	1	1302	1302	445	445	395	395	223	223	411	411	382	382	12,166	53,205
Mal Max H	1	452	452	353	353	395	395	191	191	192	192	133	133	4,954	41,018
Max St	1	192	192	353	353	-	-	191	191	192	192	133	133	2,831	29,573
McQueen	1	-	-	-	-	-	-	110	110	-	-	-	-	465	16,914
Ohio St	3	559	136	562	137	569	190	570	190	553	134	575	192	7,356	37,746
State E	1	372	372	133	133	132	132	135	135	509	509	291	291	4,132	43,756
Williams	4	734	134	753	139	563	142	732	133	733	135	694	174	9,237	62,226
Deifern Oil Co.															
State A	1	476	476	305	305	277	277	137	137	270	270	134	134	5,161	46,033
State B	1	514	514	357	357	292	292	132	132	135	135	139	139	4,982	49,874
State C	1	165	165	123	123	130	130	119	119	93	93	99	99	2,044	38,261
State D	1	756	756	551	551	569	569	543	543	704	704	512	512	7,955	59,800
State E	2	369	135	277	133	185	94	233	144	133	94	252	126	3,296	45,111
State F	3	2253	751	1913	639	1307	602	2383	706	1307	602	1451	434	31,151	171,973
State G	2	2623	1312	2075	1037	1663	832	1705	353	1638	844	1479	739	26,321	123,730
State H	2	943	472	736	368	675	337	749	375	566	283	513	259	14,415	107,030
State J	2	547	273	344	172	523	262	316	158	502	251	421	210	5,421	41,519
Great Western Prod. Inc.															
Max St	1	264	264	573	573	750	750	330	330	575	575	754	754	8,831	43,303
State L	2	1899	949	1348	674	1321	660	1522	761	1333	667	1516	757	22,593	96,414
State M	2	370	135	191	96	373	137	136	93	371	135	355	173	3,934	67,967
State N	4	1154	239	1154	233	958	239	1143	237	941	235	1136	234	14,315	67,035
State O	1	-	-	-	-	-	-	-	-	-	-	-	-	0	1,922
State P	1	162	162	-	-	-	-	156	156	-	-	-	-	641	3,716
State Q	3	1008	336	1347	449	993	333	1165	383	979	326	969	323	16,176	69,027
State R	3	1004	335	1005	335	671	224	672	224	664	221	316	272	12,790	57,153
State S	1	-	-	220	220	-	-	-	-	207	207	-	-	1,093	2,382

(continued)

GROSS PIPELINE RUNS FOR 1950

(Continued)

Operator & Lease	No. Wells on Lease	Sec.,Twp. Range	January		February		March		April		May		June	
			Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well
<u>Gulf Oil Corp.</u>														
Lea St	3	6-13-32	-	-	-	-	-	-	-	-	-	-	-	-
Lea St B	2	6-13-32	867	434	633	316	380	415	843	422	636	313	812	406
Chaves St	2	12-13-31	227	114	859	429	954	477	736	363	854	427	968	484
<u>Manry & Co.</u>														
Manry St	2	6-13-32	1071	536	873	437	1083	544	1076	533	855	423	857	429
Manry St	2	11-13-31	417	209	212	106	423	214	219	110	430	215	214	107
<u>Mid-Continent Pet. Corp.</u>														
State "13"	1	32-12-32	380	380	190	190	377	377	139	139	137	137	137	137
<u>Polis, A.K.</u>														
State A	2	12-13-31	1103	554	831	440	831	440	869	435	-	-	411	206
State B	2	1-13-31	1753	379	1550	775	1105	553	360	430	-	-	831	440
<u>Phillips Pet. Co.</u>														
Cap	1	32-12-32	193	193	183	183	374	374	183	183	-	-	191	191
Caprock	4	32-12-32	1655	414	2435	609	1379	470	1636	421	2055	514	1760	440
Levick	1	14-13-31	563	563	569	559	566	565	560	563	563	563	536	536
<u>Resler Oil Co.</u>														
State A	1	1-13-31	-	-	-	-	-	-	-	-	-	-	-	-
State B	1	12-13-31	193	193	-	-	183	183	190	190	190	190	-	-
State C	1	12-13-31	135	135	189	139	133	133	184	184	138	138	187	187
State D	1	7-13-32	-	-	-	-	186	186	-	-	-	-	183	183
State E	1	13-13-31	202	202	-	-	223	223	209	209	214	214	-	-
<u>Vickers Pet. Corp. (Formerly Malco Refg. Inc.)</u>														
Caprock St	5	6 & 7-13-32	964	193	483	97	1184	237	435	97	959	192	436	97
Caprock St A	2	13-13-31	867	424	848	424	654	327	854	427	550	325	643	324
Caprock St B	2	29-12-32	Temporarily Abandoned											
Max Osmund	1	13-13-32	213	213	218	213	213	213	214	214	422	422	212	212
Max St	3	12&13-13-32	1967	656	1461	387	1373	624	1671	557	1866	622	1173	391
Max St F-2	1	1-13-31	-	-	-	-	-	-	-	-	-	-	-	-
Williams	7	8-13-32	1770	253	1602	229	1551	222	1139	163	1390	199	1607	230
<u>Watson, J.C. Drilg. Co. (Formerly Cockburn, Barney)</u>														
State	2	36-12-31	208	104	433	216	427	214	517	253	304	152	299	150
<u>Williams, Sam</u>														
Williams	4	8-13-32	992	243	992	243	992	243	976	244	965	241	963	442
<u>Wilson, H.L. Drilg. Co.</u>														
Continental	1	19-13-32	186	186	-	-	184	184	182	182	-	-	183	183
FIELD TOTAL			55,203		51,004		53,171		47,694		44,530		39,271	
NUMBER OF WELLS			130		130		130		130		130		130	
AVERAGE PER WELL			425		392		409		367		343		301	

(Continued)

GROSS PIPELINE RIMS FOR 1950
(Continued)

Operator & Lease	No. Wells on Lease	July		August		September		October		November		December		Year Total 1950	Cum. Total to 1-1-51
		Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well	Lease	Per Well		
Gulf Oil Corp.															
Lea St	3	-	-	-	-	-	-	-	-	-	-	-	-	0	15,737
Lea St B	2	641	320	605	303	419	210	642	321	835	417	832	416	8,595	38,256
Chaves St	2	340	420	1053	523	627	314	1230	643	322	414	821	410	10,052	49,399
Mann, J. Co.															
Mann St	2	643	324	844	422	646	323	434	217	641	320	415	203	9,449	55,722
Mann St	2	429	215	214	107	426	213	217	108	405	203	216	108	3,823	19,152
Mid-Continent Pet. Corp.															
State "13"	1	183	183	183	183	187	187	-	-	189	189	189	189	2,451	22,350
Polis, A.K.															
State A	2	346	193	222	111	425	213	216	103	192	96	-	-	5,591	62,459
State B	2	446	223	598	299	-	-	-	-	412	206	630	315	3,240	49,777
Phillips Pet. Co.															
Cap	1	184	184	183	183	-	-	164	164	-	-	169	169	1,322	12,020
Caprock	4	1875	469	1876	469	1456	364	1491	373	1122	281	1303	327	20,598	37,313
Levick	1	379	379	544	544	189	189	345	345	553	553	538	538	5,910	11,858
Resler Oil Co.															
State A	1	212	212	-	-	-	-	-	-	-	-	-	-	212	14,559
State B	1	196	196	179	179	-	-	196	196	-	-	190	190	1,522	13,203
State C	1	190	190	-	-	186	186	-	-	-	-	190	190	1,532	24,396
State D	1	-	-	-	-	-	-	-	-	185	185	-	-	554	4,710
State E	1	217	217	221	221	215	215	-	-	210	210	203	203	1,914	12,634
Vickers Pet. Corp. (Formerly Malco Refg., Inc.)															
Caprock St	5	437	97	951	190	700	140	475	95	480	96	454	91	8,108	54,539
Caprock St A	2	631	316	639	319	656	323	630	315	651	326	605	303	8,333	27,256
Caprock St B		Temporarily Abandoned													
Max Osmund	1	216	216	214	214	210	210	219	213	214	214	206	206	2,776	9,550
Max St	3	1173	393	704	235	694	231	691	230	690	230	1185	395	15,153	113,312
Max St F-2	1	-	-	-	-	155	155	-	-	-	-	-	-	155	1,995
Williams	7	1605	229	1333	193	1239	184	912	130	1419	203	1103	158	16,770	94,445
Watson, J.C. Drilg. Co. (Formerly Cockburn, Barney)															
State	2	291	146	230	140	300	150	294	147	283	142	290	145	3,926	25,073
Williams, Sam															
Williams	4	976	244	976	244	860	215	896	224	840	410	860	215	11,294	80,085
Wilson, H.L. Drilg. Co.															
Continental	1	-	-	175	175	-	-	183	183	-	-	177	177	1,270	2,721
FIELD TOTAL															
NUMBER OF WELLS		39,774	35,858	29,994	29,994	32,217	32,217	32,130	32,130	493,361	493,361	3,329,397	3,329,397		
AVERAGE PER WELL		130	129	129	129	129	129	129	129	249	249	249	249		

GROSS PIPELINE RUNS FOR 1951
CAPROCK FIELD
LEA & CHAVES COUNTIES, NEW MEXICO

Operator & Lease	No. Wells on Lease	Sec., Twp. Range	Cum. Total to 1-1-51	January		February		March		Cum. Total to 4-1-51
				Lease	Per Well	Lease	Per Well	Lease	Per Well	
British American Oil Prod.										
State	2	13-13-31	54,430	950	475	439	245	473	239	56,347
Cities Service Oil Co.										
State R	2	17-13-32	43,983	759	379	927	464	755	377	51,424
State T	1	32-13-32	6,271	-	-	-	-	-	-	6,271
Cooperative Prod. Assn.										
Liv. Max	1	36-12-31	29,197	140	140	-	-	93	93	29,430
Liv. Max A	1	1-13-31	24,991	-	-	105	105	-	-	25,096
Liv. Max St G	5	31-12-32	205,165	1,105	421	1,702	340	1,623	325	210,595
Liv. Max St H	1	36-12-31	53,005	568	568	567	567	542	542	59,682
Liv. Max J	4	6-13-32	154,076	851	213	551	138	566	142	156,044
Liv. Max St K	2	7-13-32	31,783	152	76	110	55	145	73	32,190
Liv. St. D	1	30-12-32	39,302	139	139	183	183	152	152	39,826
Malco Max A	7	31-12-32	235,110	1,699	243	1,421	203	1,689	241	239,919
Malco Max B	1	36-12-31	6,620	-	-	-	-	-	-	6,620
Malco Max C	1	36-12-31	57,751	565	565	566	566	363	363	59,245
Malco Max F-3	1	1-13-31	22,749	-	-	-	-	-	-	22,749
Malco Max F-1	1	36-12-31	53,205	740	740	723	723	662	662	60,335
Malco Max H	1	7-13-32	41,018	206	206	432	432	221	221	41,877
Max St	1	12-13-31	29,573	191	191	163	163	156	156	30,083
McQueen	1	1-13-31	16,914	-	-	-	-	101	101	17,015
Ohio St	3	11-13-31	37,746	379	126	375	125	292	97	38,792
State E	1	1-13-31	43,756	182	182	323	323	296	296	44,557
Williams	4	7-13-32	62,226	577	144	575	144	727	132	64,105
Delfern Oil Co.										
State A	1	36-12-31	46,083	370	370	193	193	361	361	47,007
State B	1	1-13-31	49,874	272	272	185	185	183	183	50,519
State C	1	1-13-31	38,261	115	115	87	87	98	98	38,561
State D	1	1-13-31	59,800	549	549	379	379	375	375	61,103
State E	2	11-13-31	45,111	250	125	146	73	115	57	45,622
State F	3	7-13-32	171,973	1,705	568	1,422	474	1,312	437	176,412
State G	2	1-13-31	128,780	1,459	729	912	456	1,102	551	132,253
State H	2	12-13-31	107,080	496	248	511	256	667	333	108,754
State J	2	13-13-31	41,519	334	167	274	137	336	168	42,463
Great Western Prod. Inc.										
Max St	1	12-13-31	48,808	930	930	744	744	935	935	51,417
State L	2	12-13-31	96,414	953	476	951	476	1,122	561	99,440
State M	2	12-13-31	67,967	192	96	193	97	350	175	68,702
State N	4	18-13-32	67,085	946	237	1,320	330	1,129	282	70,430
State O	1	12-13-31	1,922	-	-	-	-	-	-	1,922
State P	1	2-13-31	3,716	149	149	-	-	-	-	3,865
State Q	3	32-12-32	69,027	978	326	986	329	898	299	71,889
State R	3	5-13-32	57,153	972	324	783	261	655	218	59,563
State S	1	5-13-32	2,882	-	-	209	209	-	-	3,091

(Continued)

GROSS PIPELINE RUNS FOR 1951
(Continued)

Operator & Lease	No. Wells on Lease	Sec., Twp. Range	Cum. Total to 1-1-51	January		February		March		Cum. Total to 4-1-51
				Lease	Per Well	Lease	Per Well	Lease	Per Well	
<u>Gulf Oil Corp.</u>										
Chaves St	2	12-13-31	49,899	854	427	839	419	621	310	52,213
Lea St	3	6-13-32	15,787	-	-	-	-	-	-	15,787
Lea St B	2	6-13-32	38,256	621	310	802	401	1049	524	40,728
<u>Manry & Co.</u>										
Manry St A	2	6-13-32	55,722	673	337	647	324	215	107	57,257
	2	11-13-31	19,152	215	108	212	106	435	217	20,014
<u>Mid-Cont. Pet. Corp.</u>										
State #13 ^W	1	32-12-32	22,350	381	381	186	186	188	188	23,105
<u>Phillips Pet. Co.</u>										
Cap	1	32-12-32	12,020	-	-	191	191	156	156	12,367
Caprock	4	32-12-32	87,313	1284	321	1490	372	1097	274	91,184
Levick	1	14-13-31	11,858	575	575	376	376	571	571	13,380
<u>Polis, A.K.</u>										
State A	2	12-13-31	62,459	208	104	216	108	425	212	63,308
State B	2	1-13-31	49,777	835	418	430	215	640	320	51,682
<u>Resler Oil Co.</u>										
(Formerly Page, Henry)										
State A	1	1-13-31	14,559	-	-	-	-	-	-	14,559
State B	1	12-13-31	16,203	-	-	192	192	-	-	16,395
State C	1	12-13-31	24,896	-	-	-	-	186	186	25,082
State D	1	7-13-31	4,710	-	-	-	-	-	-	4,710
State E	1	13-13-31	12,634	-	-	214	214	169	169	13,017
<u>Vickers Pet. Co.</u>										
(Formerly Malco Refg., Inc.)										
Caprock St	5	6-13-32	54,539	439	88	288	58	402	81	55,668
		7-13-32								
Caprock St A	2	18-13-32	27,256	449	225	666	333	653	326	29,024
Max Osmond	1	13-13-31	9,550	218	218	184	184	209	209	10,161
Max St	3	13 & 12-13-31	118,812	674	225	486	162	450	150	120,422
Max St r-2		1-13-31	1,995	-	-	-	-	-	-	1,995
Williams	7	7 & 8-13-32	94,445	1408	201	1415	202	1212	173	98,480
<u>Watson, J.C. Drlg. Co.</u>										
(Formerly Cockburn, Barney)										
State	2	36-12-31 13-13-31	25,073	298	149	297	148	221	221	25,889
<u>Williams, Sam</u>										
Williams	4	8-13-32	80,085	820	205	696	174	728	182	82,329
<u>Wilson, H.L. Drlg. Co.</u>										
Continental	1	19-13-32	2,721	-	-	185	185	-	-	2,906
FIELD TOTAL			3,329,397	30,875		28,524		28,131		3,416,927
TOTAL WELLS	123	AVERAGE PER WELL	241	241		223		220		

COOPERATIVE PRODUCING ASSOCIATION
AIR & WATER INJECTION RECORD
CAPROCK FIELD
LEA & CHAVES COUNTIES, NEW MEXICO
ONE EXPERIMENTAL INJECTION WELL
STATE 2-a, Sec. 31, T-12-S, R-32-E

<u>Date</u>	<u>Oper- ating Hours</u>	<u>Daily Vol. Air Injected</u>	<u>Cum. Volume Air Injected</u>	<u>Injection Pressure</u>	<u>Daily Vol. Water Injected</u>	<u>Cum. Vol. Water Injected</u>
9-25-50	23	79,040	79,040	465-70		
9-26-50	23	67,536	146,576			
9-27-50	23	95,081	241,657			
9-28-50	23	77,274	338,931			
9-29-50	23	95,840	432,771			
9-30-50	24	106,440	539,211			
10- 1-50	24	115,583	654,799			
10- 2-50	24	129,638	734,437			
10- 3-50	24	105,319	839,756			
10- 4-50	13	30,845	970,601			
10- 5-50	16	63,040	1,033,641			
10- 6-50	17	59,425	1,093,066			
10- 7-50	24	90,055	1,183,121			
10- 8-50	24	92,035	1,275,156			
10- 9-50	22	89,692	1,364,848			
10-10-50	19	81,330	1,446,228			
10-11-50 through						
10-19-50	0	-				
10-20-50	14	30,294	1,526,522			
10-21-50	23	58,219	1,584,741			
10-22-50	23	101,822	1,686,563			
10-23-50	22	73,975	1,760,538			
10-24-50	24	97,254	1,857,792			
10-25-50	24	98,635	1,956,427			
10-26-50	24	97,357	2,053,784			
10-27-50	22	92,305	2,146,089			
10-28-50	24	86,878	2,232,967			
10-29-50	24	82,916	2,315,883	465-70		
10-30-50	23	96,728	2,412,611			
10-31-50	24	97,309	2,509,920			
11- 1-50	23	95,607	2,605,527			
11- 2-50	24	101,924	2,707,451			
11- 3-50	23	98,042	2,805,493			
11- 4-50	24	83,099	2,888,592			
11- 5-50	21	85,565	2,974,157			
11- 6-50	24	86,167	3,060,324			
11- 7-50	16	59,485	3,119,809			
11- 8-50	24	101,164	3,220,973			
11- 9-50	24	102,340	3,323,313			
11-10-50	13	73,280	3,396,593			

(Continued)

COOPERATIVE PRODUCING ASSOCIATION
AIR & WATER INJECTION RECORD
(Continued)

<u>Date</u>	<u>Oper- ating Hours</u>	<u>Daily Vol. Air Injected</u>	<u>Cum. Volume Air Injected</u>	<u>Injection Pressure</u>	<u>Daily Vol. Water Injected</u>	<u>Cum. Vol. Water Injected</u>
11-11-50	0	0			82	82
11-12-50	0	0			198	280
11-13-50	0	0			84	364
11-14-50	14	Pressure too high for chart				
11-15-50	24	"	"	"	"	"
11-16-50	24	"	"	"	"	"
11-17-50	18	"	"	"	"	"
11-18-50	24	71,638	3,468,281			
11-19-50	24	71,040	3,539,321			
11-20-50	24	76,723	3,616,049			
11-21-50	24	83,496	3,699,545			
11-22-50	24	88,152	3,787,697			
11-23-50	24	85,302	3,872,999			
11-24-50	24	87,120	3,960,119			
11-25-50	24	86,840	4,046,959			
11-26-50	24	87,817	4,134,776			
11-27-50	24	87,593	4,222,369			
11-28-50	24	87,238	4,309,607			
11-29-50	24	87,074	4,396,681			
11-30-50	24	85,536	4,482,217			
12- 1-50	23	81,153	4,563,370			
12- 2-50	24	97,355	4,660,725			
12- 3-50	24	96,849	4,757,574			
12- 4-50	24	101,227	4,858,801			
12- 5-50	16	59,744	4,918,545			
12- 6-50	11	43,942	4,962,487			
12- 7-50	21	81,506	5,044,003			
12- 8-50	24	91,643	5,135,646			
12- 9-50	24	106,896	5,242,542			
12-10-50	22	97,006	5,339,548			
12-11-50	24	113,835	5,453,383			
12-12-50	24	114,312	5,567,695			
12-13-50	24	112,250	5,679,945			
12-14-50	24	120,954	5,800,899			
12-15-50	24	110,186	5,911,085			
12-16-50	24	116,748	6,027,833			
12-17-50	24	111,880	6,139,713			
12-18-50	11	49,645	6,189,358			
12-19-50	23	108,458	6,297,816			
12-20-50	24	122,132	6,419,948			
12-21-50	24	124,984	6,544,932			
12-22-50	24	123,329	6,668,261			
12-23-50	24	119,513	6,787,774			
12-24-50	24	116,857	6,904,631			

(Continued)

COOPERATIVE PRODUCING ASSOCIATION
AIR & WATER INJECTION RECORD
(Continued)

<u>Date</u>	<u>Oper- ating Hours</u>	<u>Daily Vol. Air Injected</u>	<u>Cum. Vol. Air Injected</u>	<u>Injection Pressure</u>	<u>Daily Vol. Water Injected</u>	<u>Cum. Vol. Water Injected</u>
12-25-50	24	116,995	7,021,641			
12-26-50	24	109,636	7,131,327			
12-27-50	24	111,432	7,242,759			
12-28-50	24	116,417	7,359,176			
12-29-50	24	111,830	7,471,056			
12-30-50	24	107,155	7,578,211			
12-31-50	24	107,577	7,685,788			
1- 1-51	24	105,124	7,790,912			
1- 2-51	24	103,352	7,894,264			
1- 3-51	24	94,765	7,989,029			
1- 4-51	22	91,260	8,080,289			
1- 5-51	16	70,368	8,150,657			
1- 6-51	23	100,512	8,251,169			
1- 7-51	22	91,965	8,343,134			
1- 8-51	24	107,783	8,450,917			
1- 9-51	24	106,350	8,557,267			
1-10-51	24	106,208	8,663,475			
1-11-51	18	221,469	8,884,944			
1-12-51	22	146,207	9,031,151			
1-13-51		Injecting Water Pressure			120	484
1-14-51						
1-15-51	through	Too High for Chart			42	526
1-31-51		" "	" "			

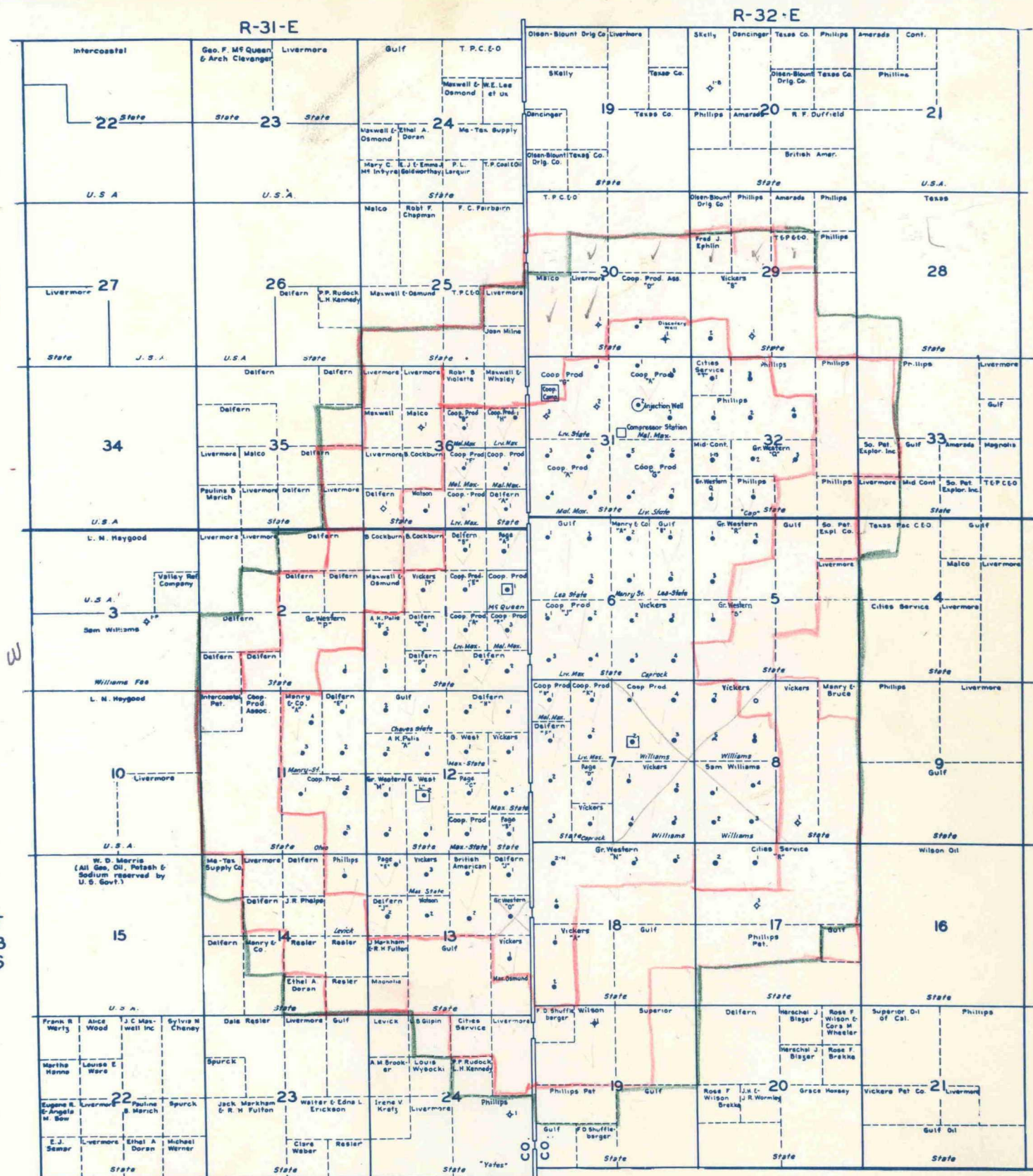
Repressuring Plant down during Month of February, 1951 -
Mechanical Difficulties.

3- 1-51	24	61,431	9,092,582			
3- 2-51	24	62,696	9,155,278			
3- 3-51	24	64,604	9,219,882			
3- 4-51	24	74,262	9,294,144			
3- 5-51	24	74,914	9,369,058			
3- 6-51	24	77,325	9,446,383			
3- 7-51	23	74,243	9,521,126			
3- 8-51	24	77,748	9,598,874			
3- 9-51	24	84,446	9,683,320			
3-10-51	24	86,977	9,770,297			
3-11-51	24	87,333	9,857,635			
3-12-51	24	86,724	9,944,359			
3-13-51	16	57,024	10,001,383			
3-14-51	22	75,445	10,076,828			
3-15-51	24	94,181	10,171,009			
3-16-51	24	101,249	10,272,258			
3-17-51	24	111,917	10,384,175			

(Continued)

COOPERATIVE PRODUCING ASSOCIATION
AIR & WATER INJECTION RECORD
(Continued)

<u>Date</u>	<u>Oper- ating Hours</u>	<u>Daily Vol. Air Injected</u>	<u>Cum. Volume Air Injected</u>	<u>Injection Pressure</u>	<u>Daily Vol. Water Injected</u>	<u>Cum. Vol. Water Injected</u>
3-18-51	24	102,723	10,436,903			
3-19-51	24	92,292	10,579,195			
3-20-51	24	85,886	10,665,081			
3-21-51	24	104,597	10,769,678			
3-22-51	24	93,889	10,863,567			
3-23-51	24	110,970	10,974,537			
3-24-51	24	99,321	11,073,858			
3-25-51	24	102,320	11,176,178			
3-26-51	12	67,793	11,243,976			
3-27-51	14	72,452	11,316,428			
3-28-51	20	79,360	11,395,783			
3-29-51	8	34,386	11,430,174			
4- 1-51	14	47,340	11,477,514			
4- 2-51	19	64,738	11,542,252			
4- 3-51	24	54,266	11,596,518			
4- 4-51	24	93,516	11,690,034			
4- 5-51	24	88,379	11,778,413			
4- 6-51	24	91,786	11,870,199			
4- 7-51	24	95,447	11,965,646			
4- 8-51	24	113,399	12,079,045			
4- 9-51	24	106,881	12,185,926			
4-10-51	24	106,896	12,292,822			
4-11-51	24	104,131	12,396,953			
4-12-51	23	104,569	12,501,522			
4-13-51	24	92,468	12,593,990			
4-14-51	23	108,599	12,702,589			
4-15-51	22	122,492	12,824,881			
4-16-51	24	129,300	12,954,181			
4-17-51	24	137,484	13,091,665			
4-18-51	17	96,240	13,187,905			
4-19-51	24	138,964	13,326,869			
4-20-51	24	126,037	13,452,906			
4-21-51	24	120,350	13,573,256			
4-22-51	24	134,272	13,707,528			
4-23-51	24	124,520	13,832,048			
4-24-51	14	69,375	13,901,423			
4-25-51	17	36,105	13,987,528			
4-26-51	24	114,080	14,101,608			
4-27-51	24	128,508	14,230,116			
4-28-51	24	128,820	14,358,936			
4-29-51	24	141,573	14,500,509			
4-30-51	20	91,367	14,591,876			

T
12
ST
13
S

R-31-E

R-32-E

5

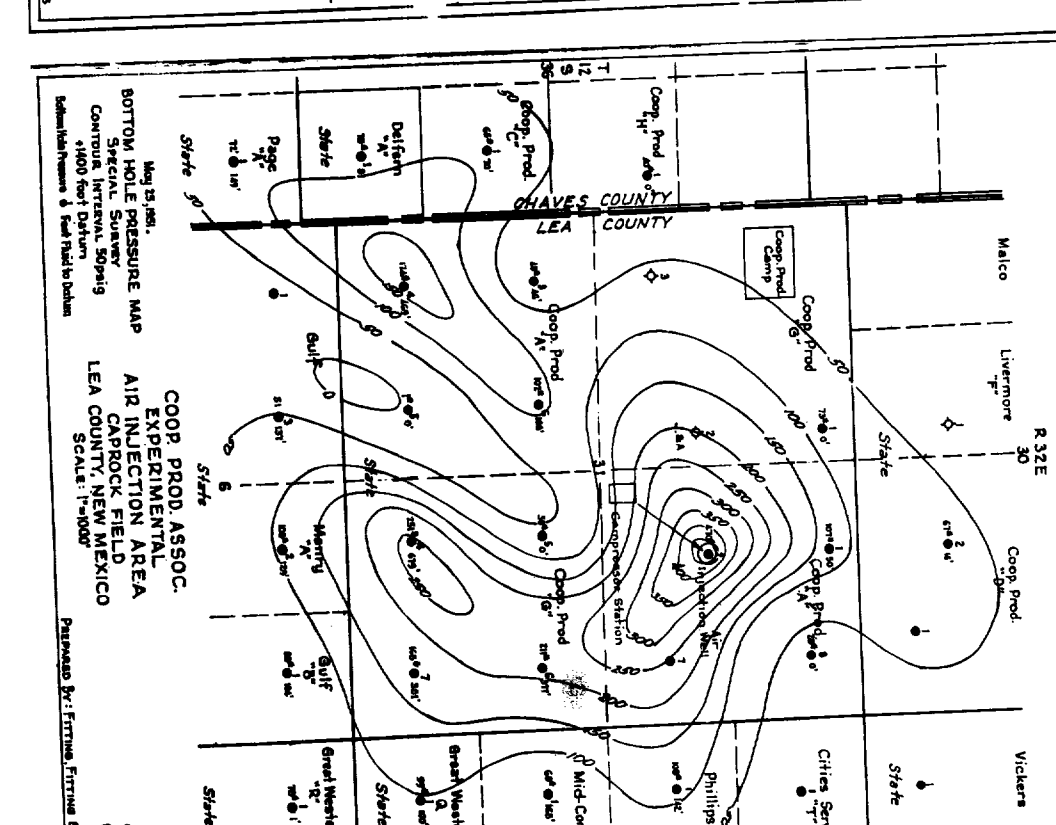
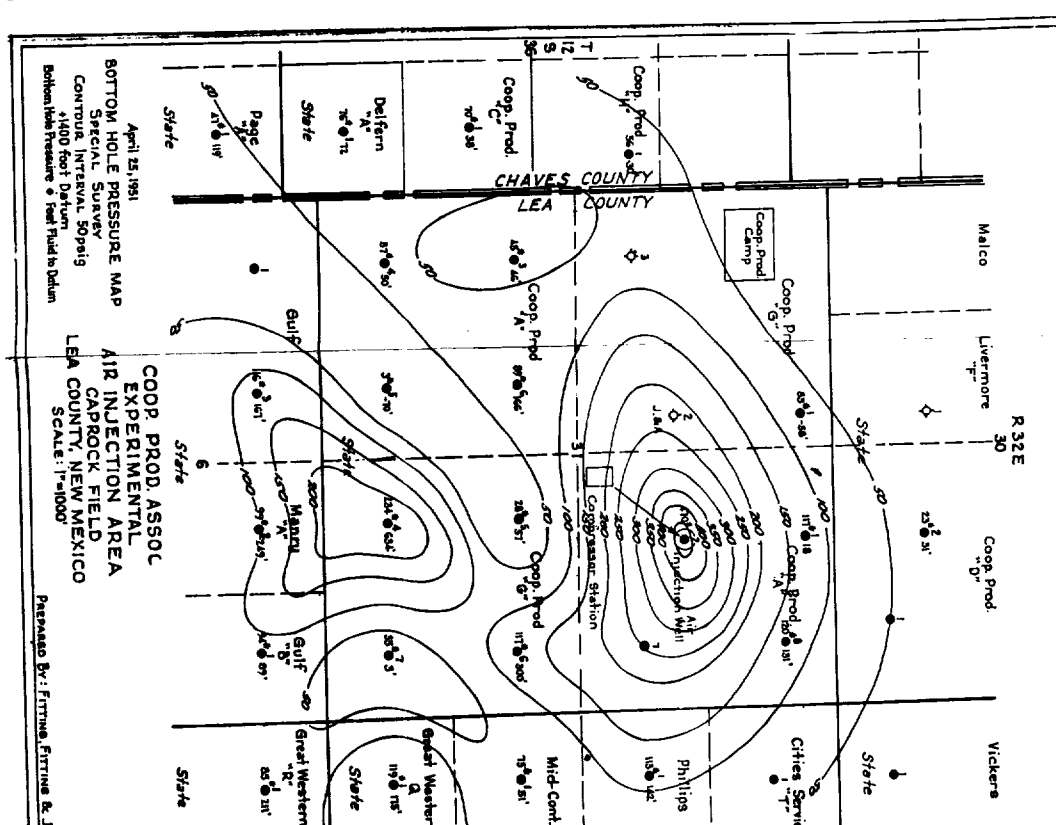
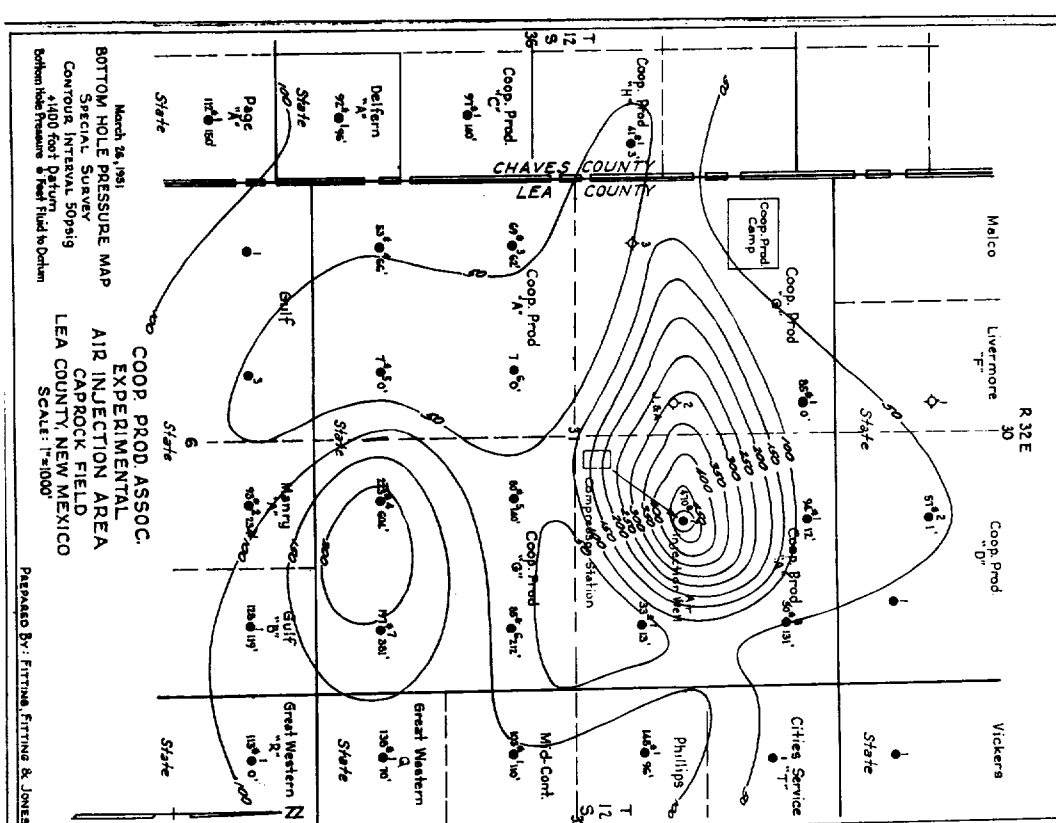
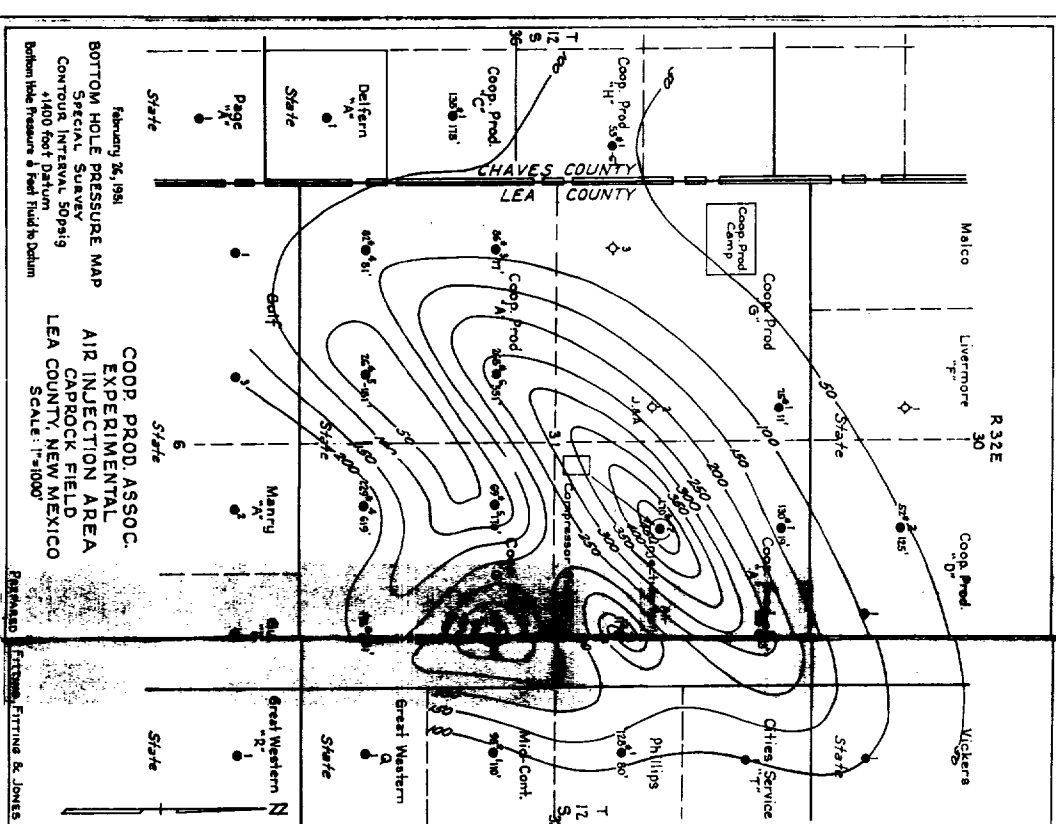
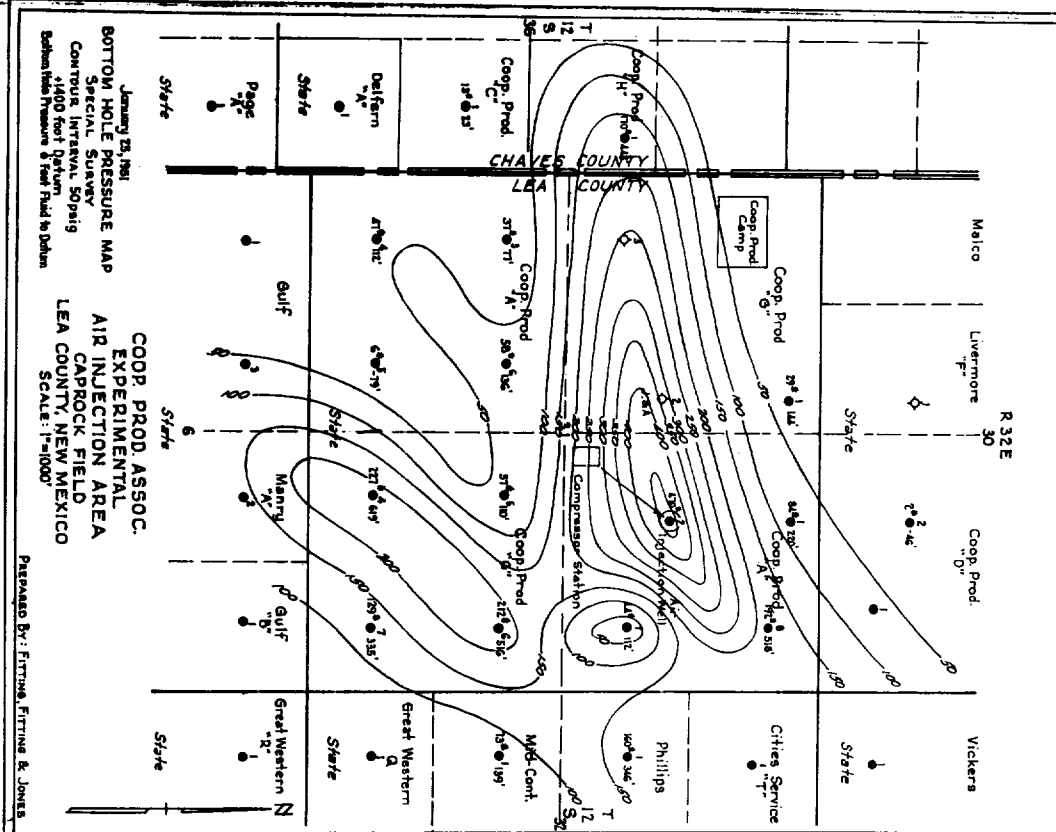
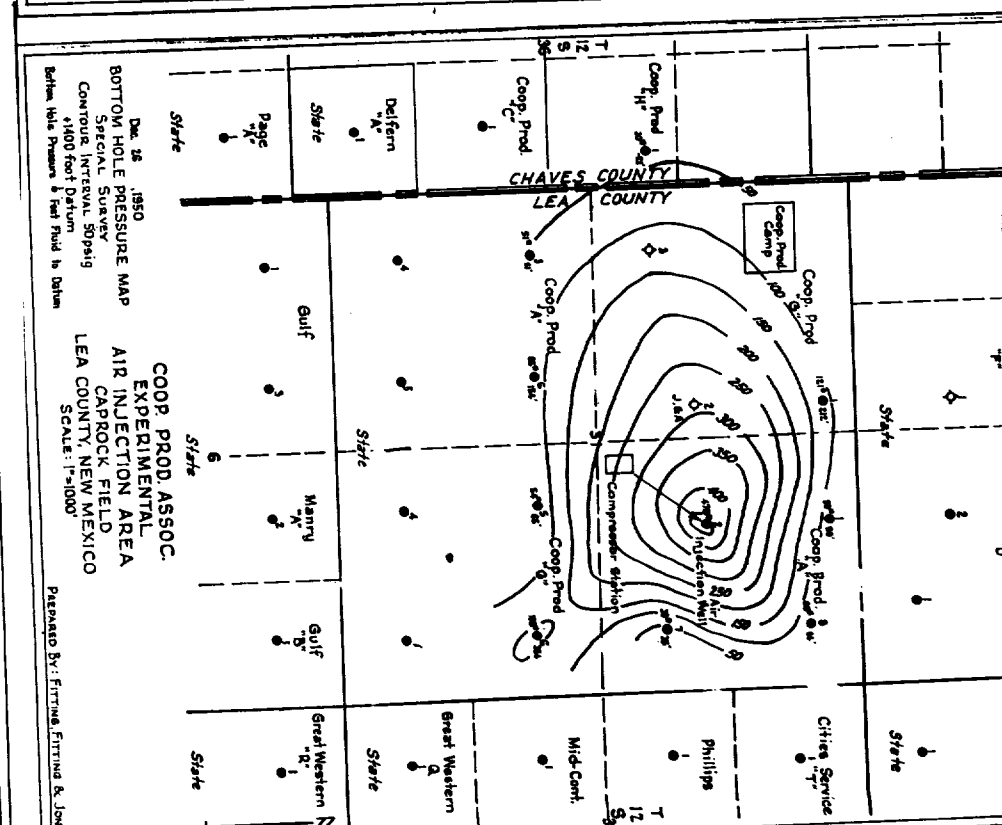
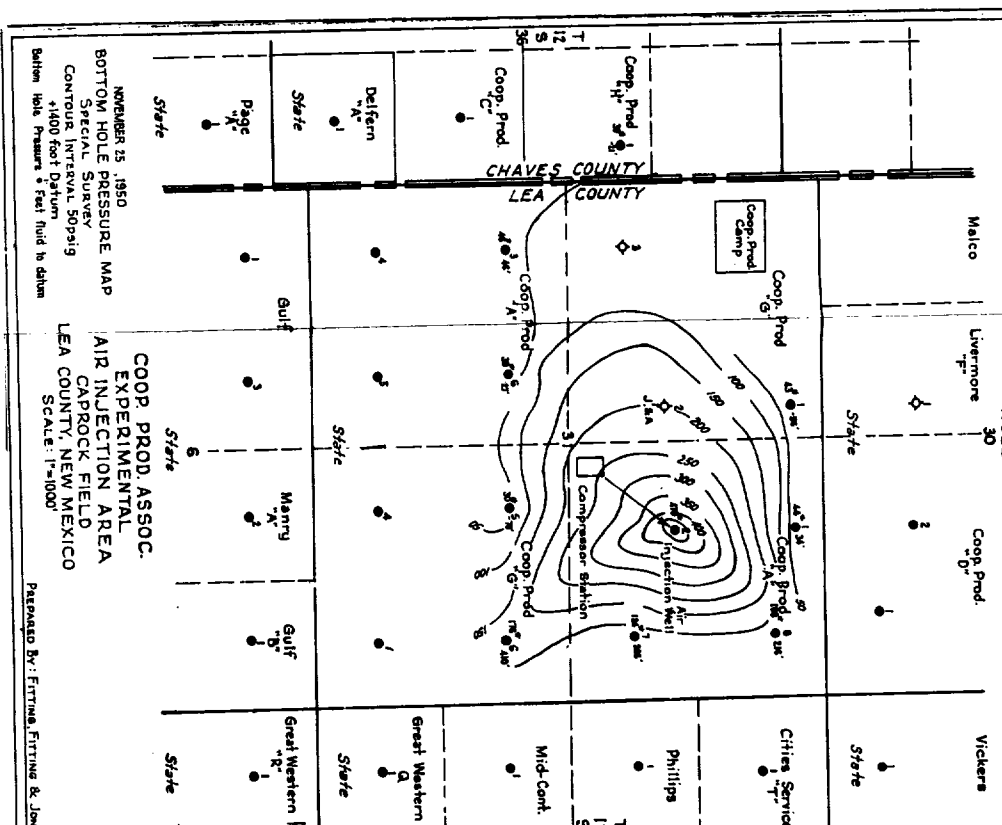
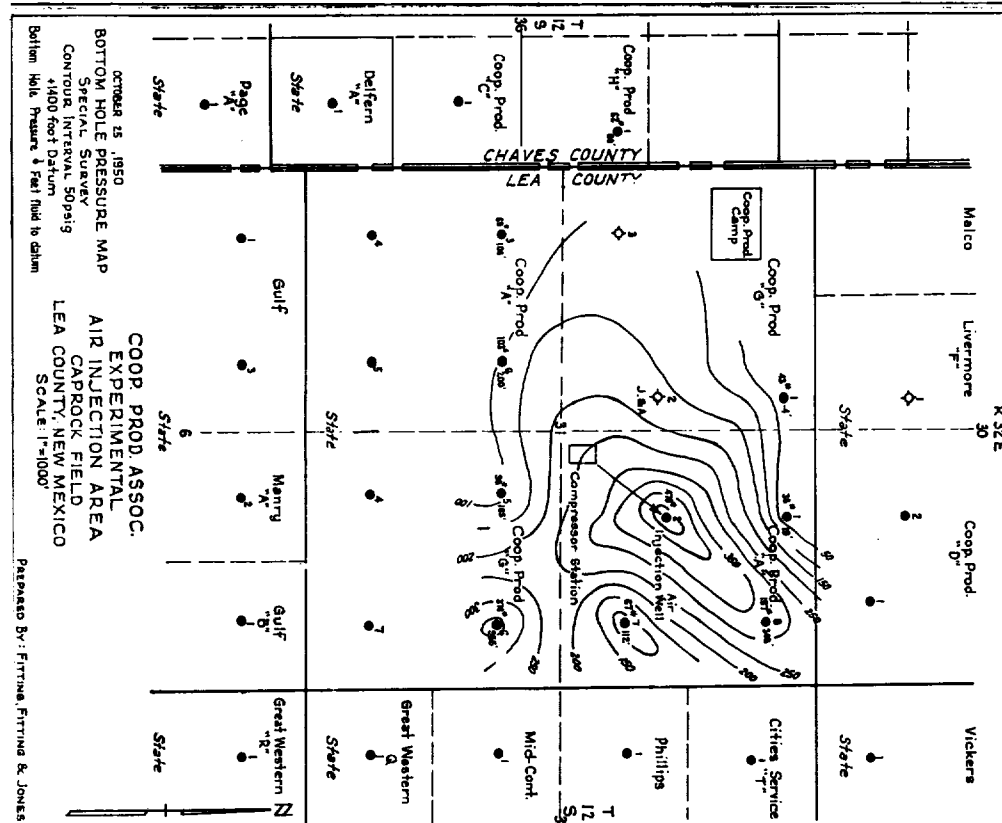
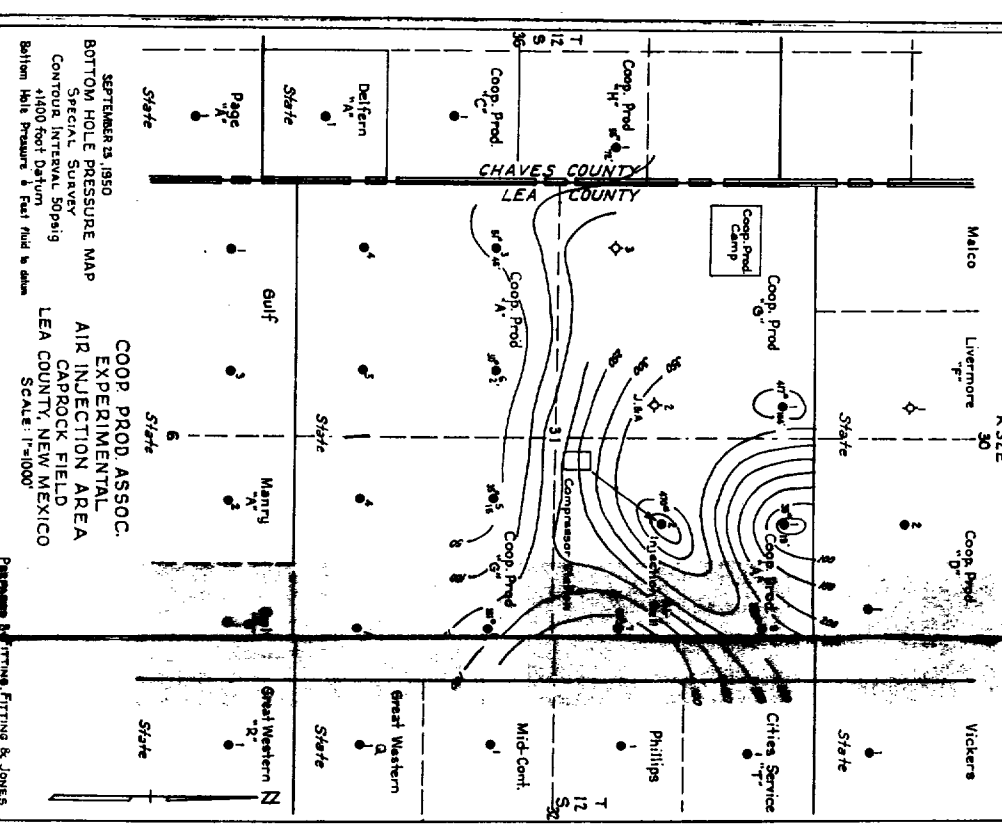
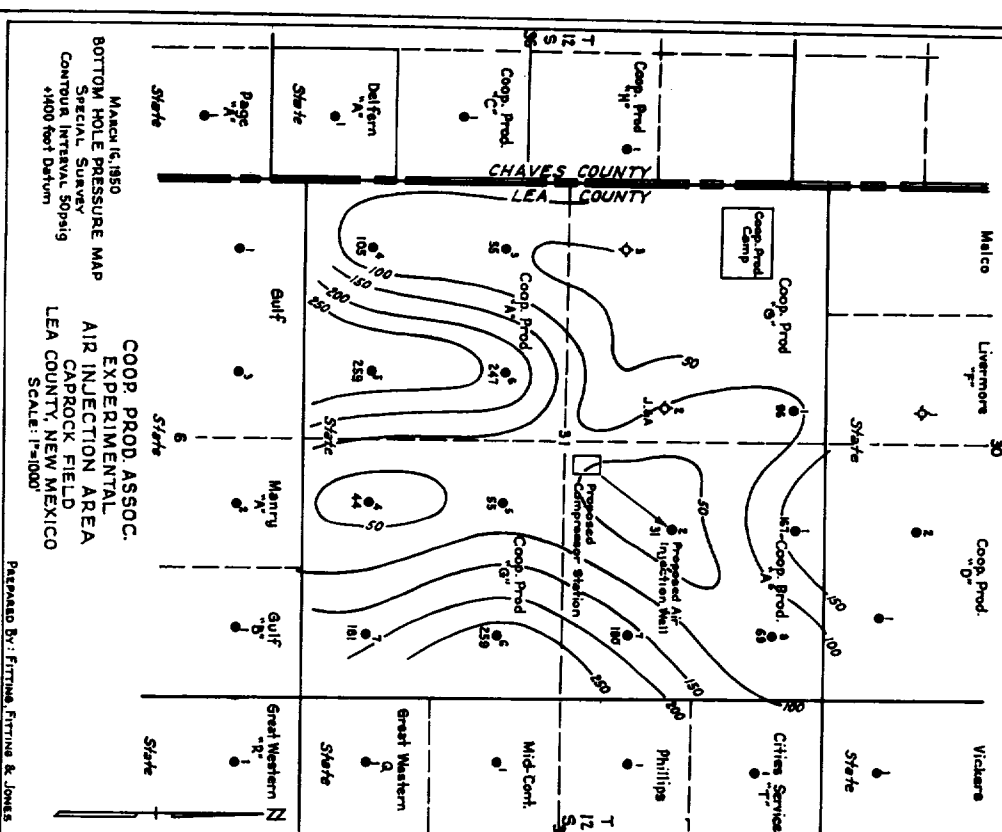
CAPROCK FIELD
LEA AND CHAVES COUNTIES
NEW MEXICO

SCALE: 0 1000 Feet
0 1 Miles

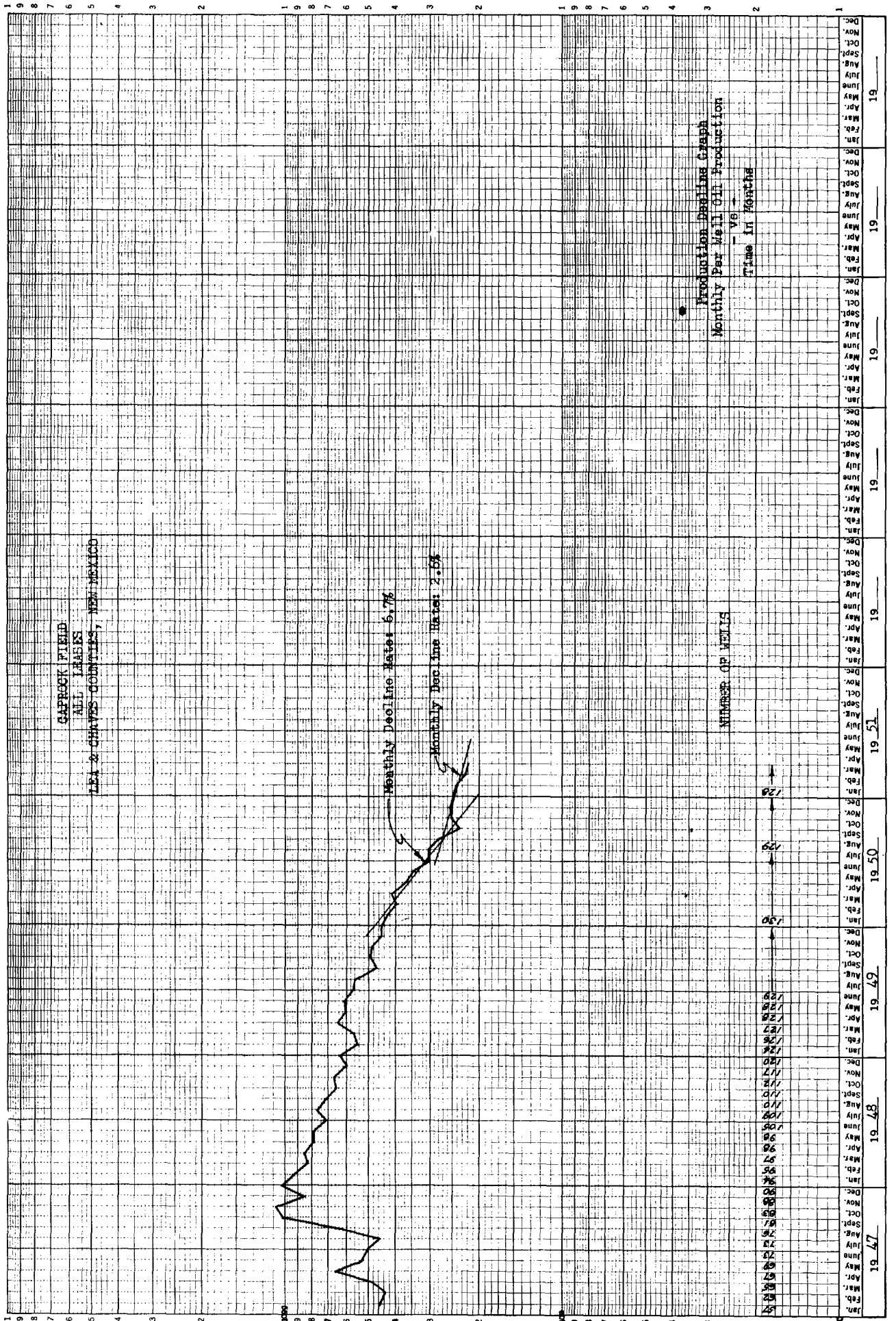
PREPARED BY: FITTING, FITTING & JONES

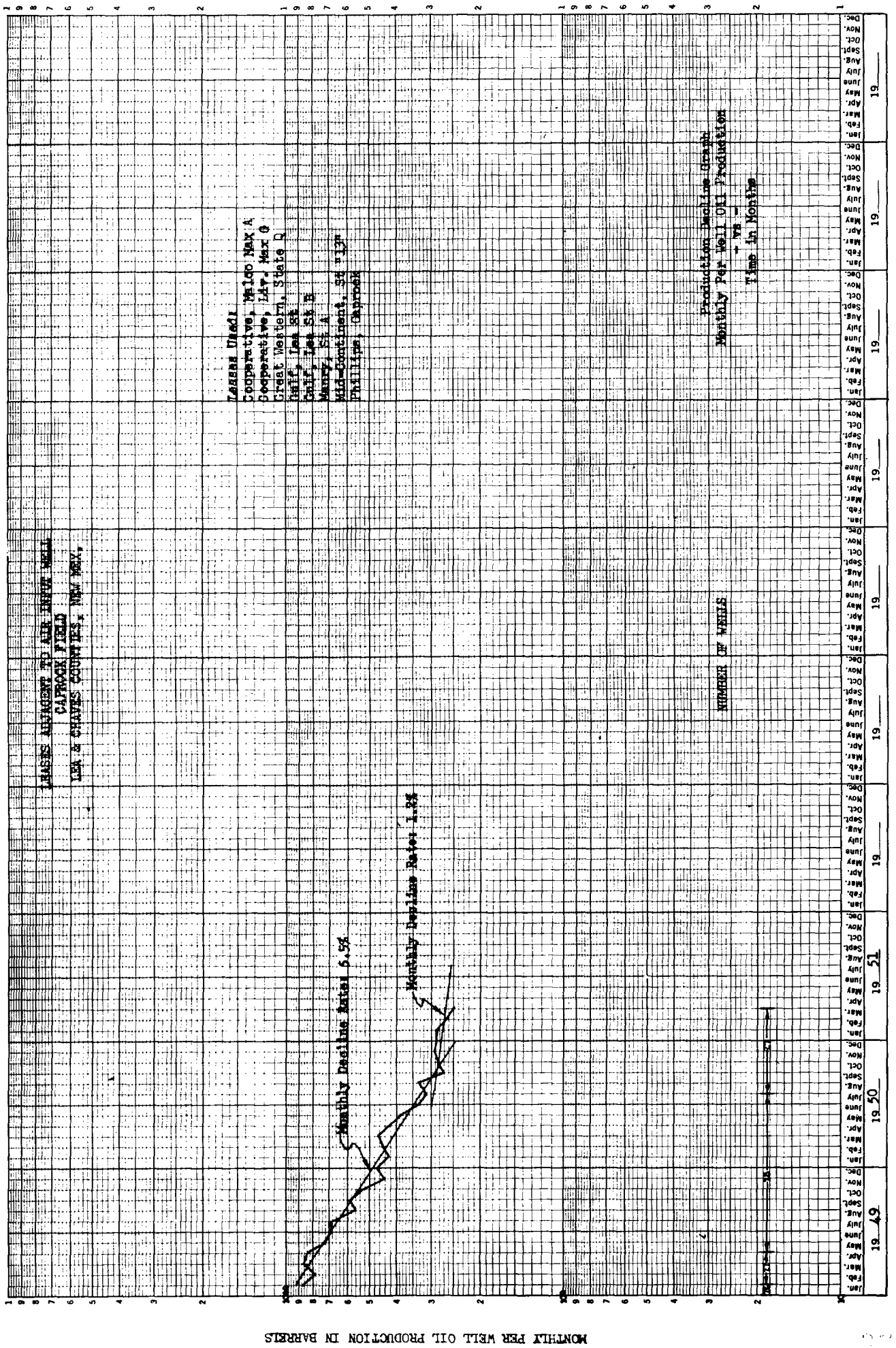
LEGEND
● Present Injection Well
◻ Proposed

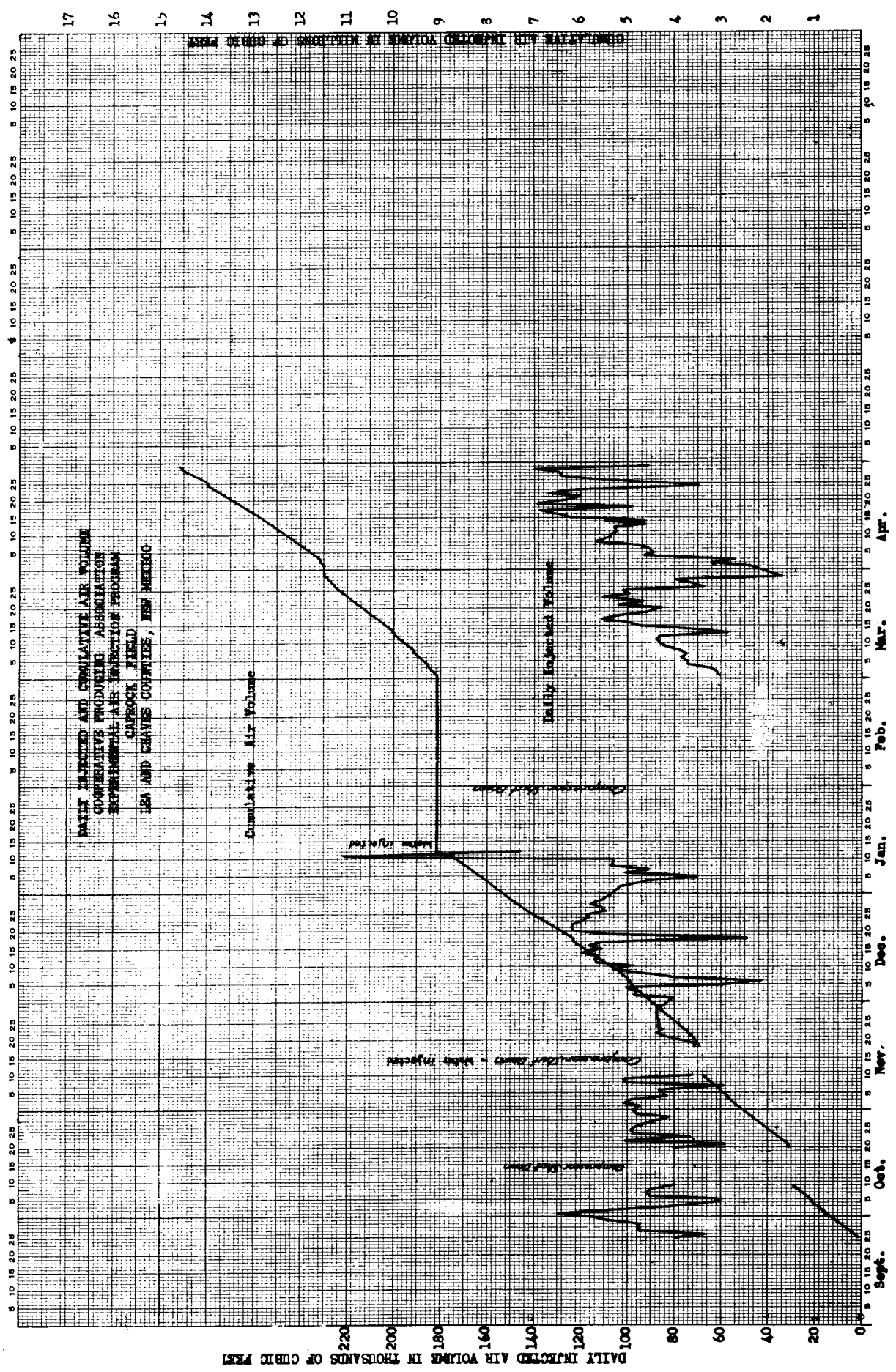
T
12
ST
13
S



MONTHLY PER WELL OIL PRODUCTION IN BARRELS



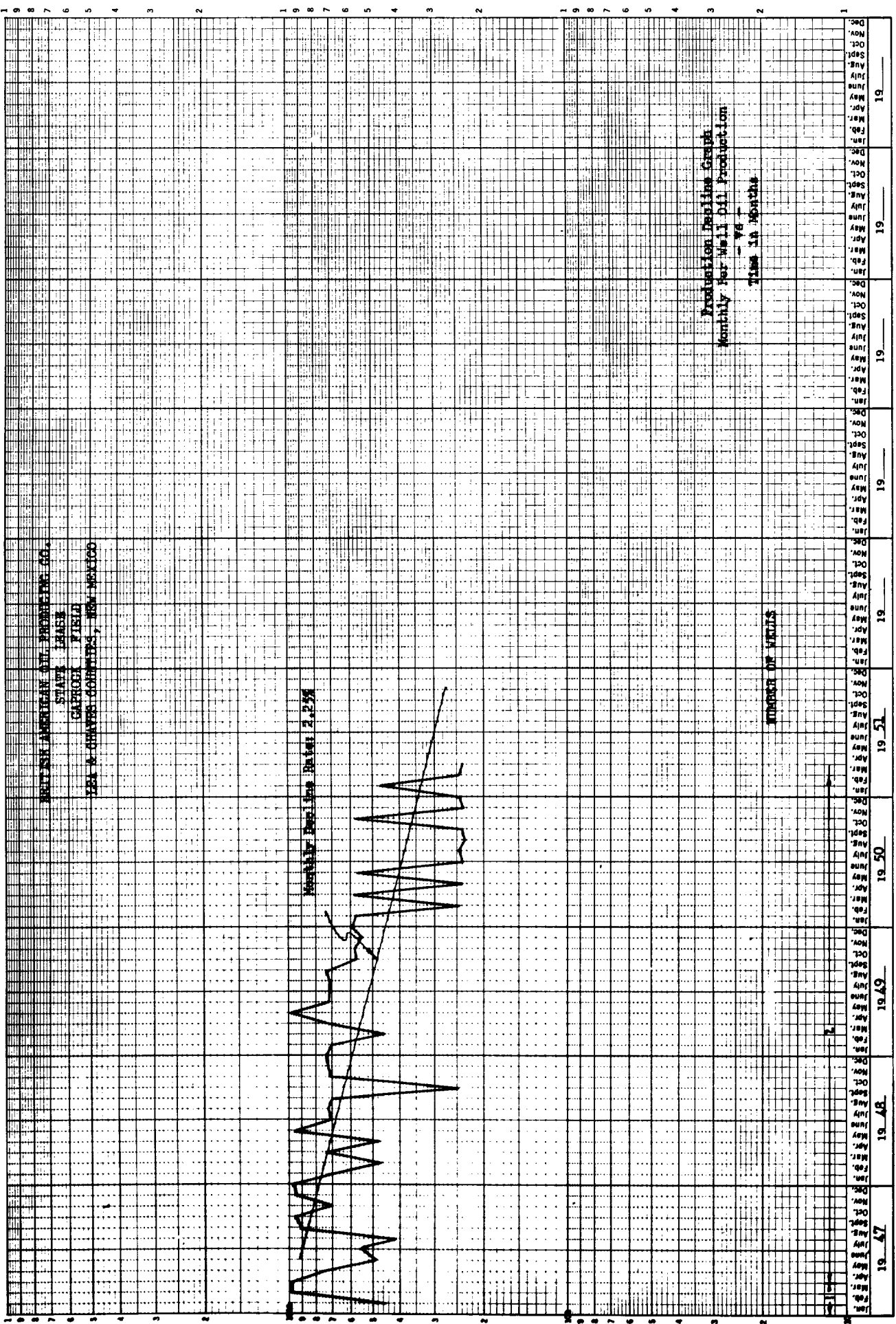




DAILY INJECTED AIR VOLUME IN THOUSANDS OF CUBIC FEET

CUMULATIVE AIR INJECTED VOLUME IN THOUSANDS OF CUBIC FEET

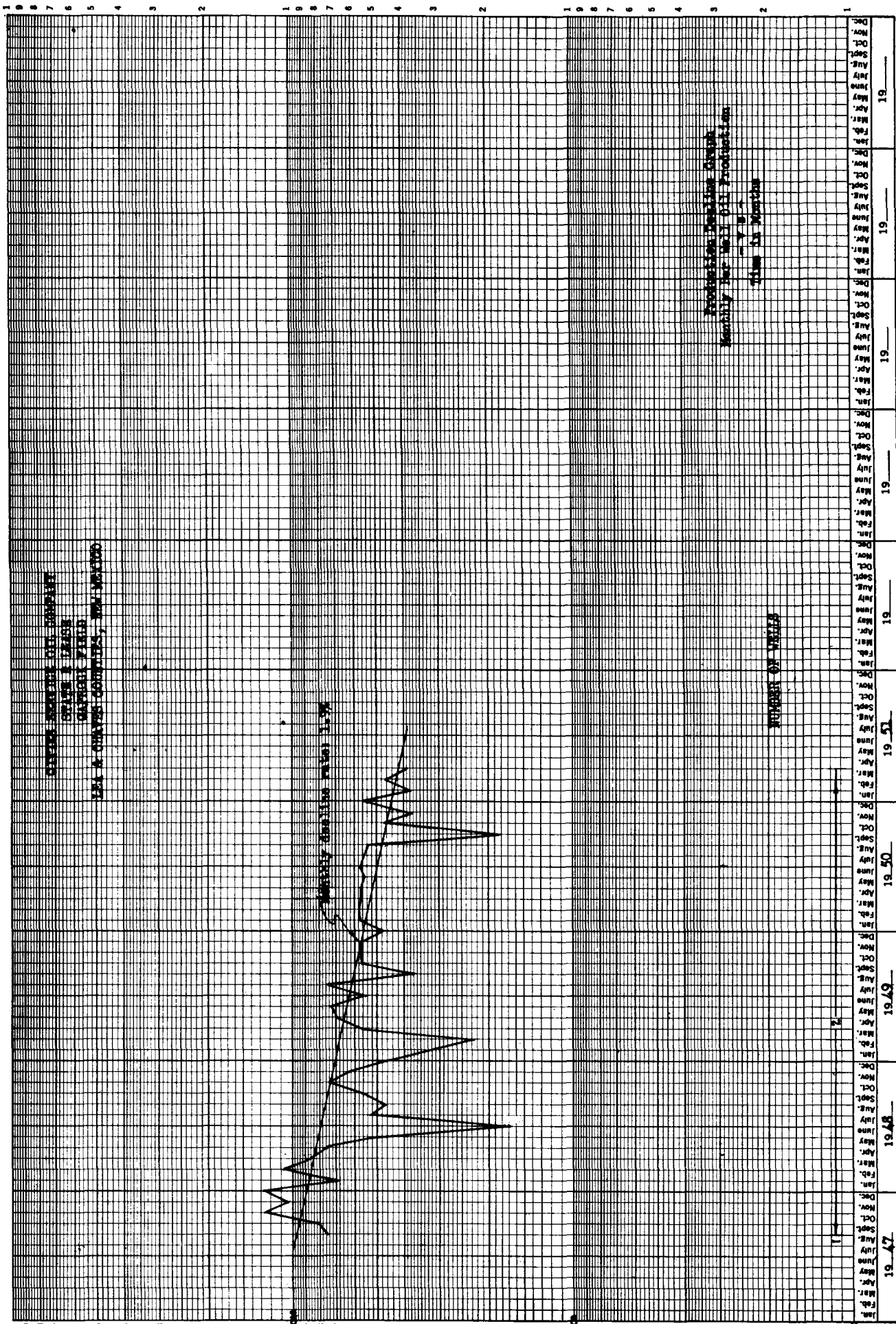
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1



BRITISH AMERICAN OIL PROMISING CO.
STATE IRAN
CAPROA FIELD
SEA & CHAYES COMPTES, NEW MEXICO

Monthly Decline Rate: 2.25%

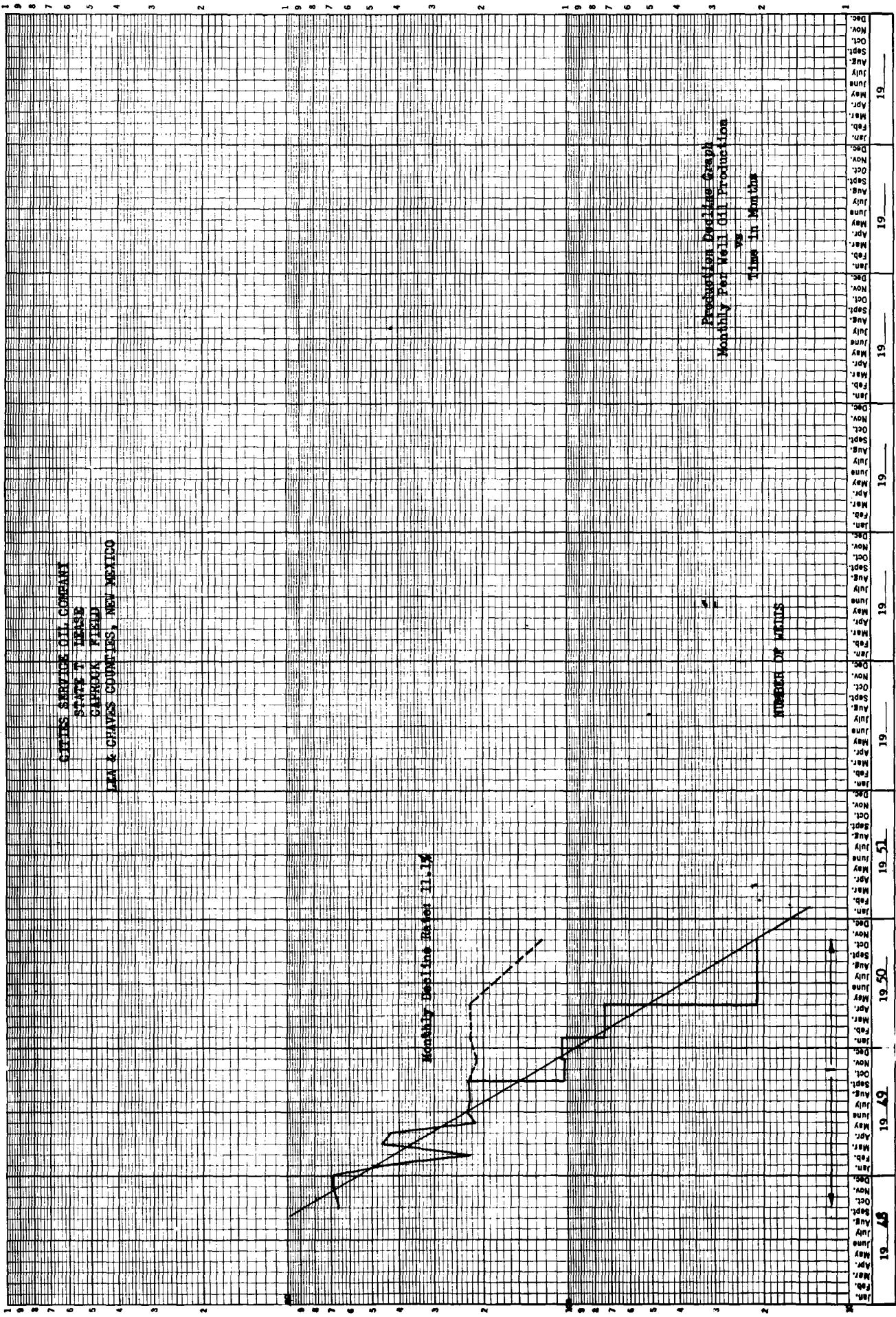
MONTHLY PER WELL OIL PRODUCTION IN BARRELS



AMERICAN PETROLEUM INSTITUTE
OIL & GAS
RESEARCH
WASHINGTON, D.C.

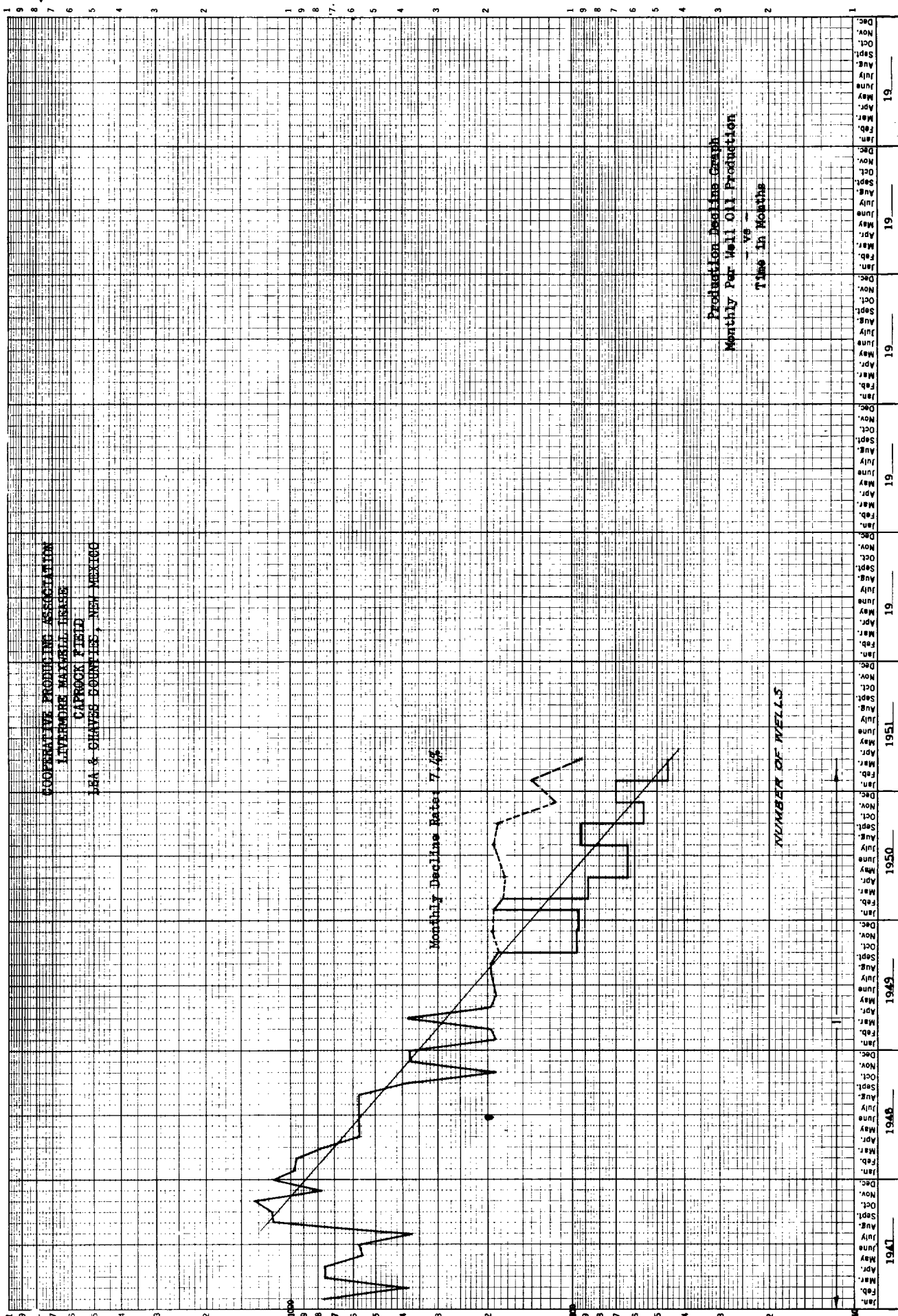
1947-1957

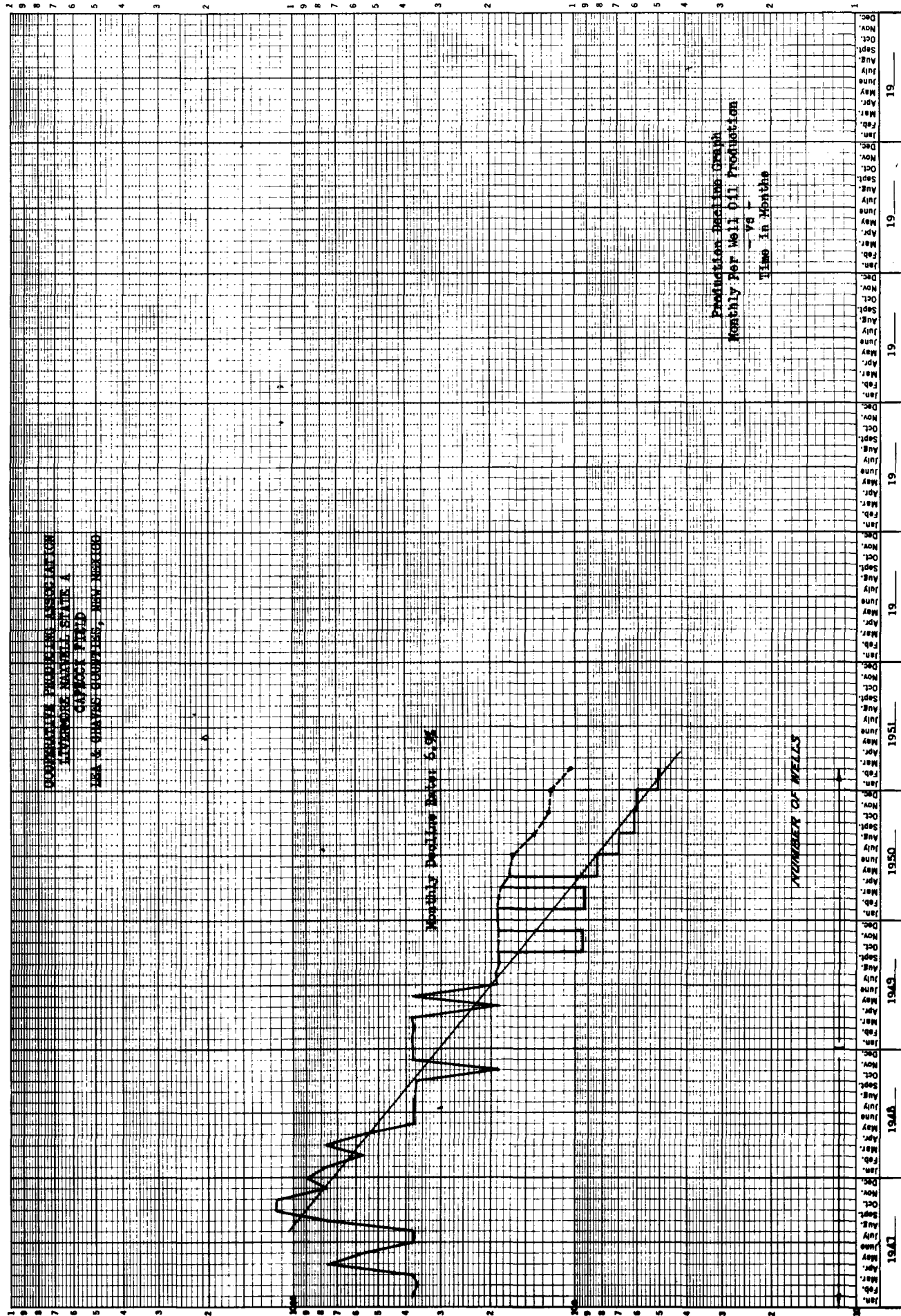
MONTHLY PER WELL OIL PRODUCTION IN BARRELS



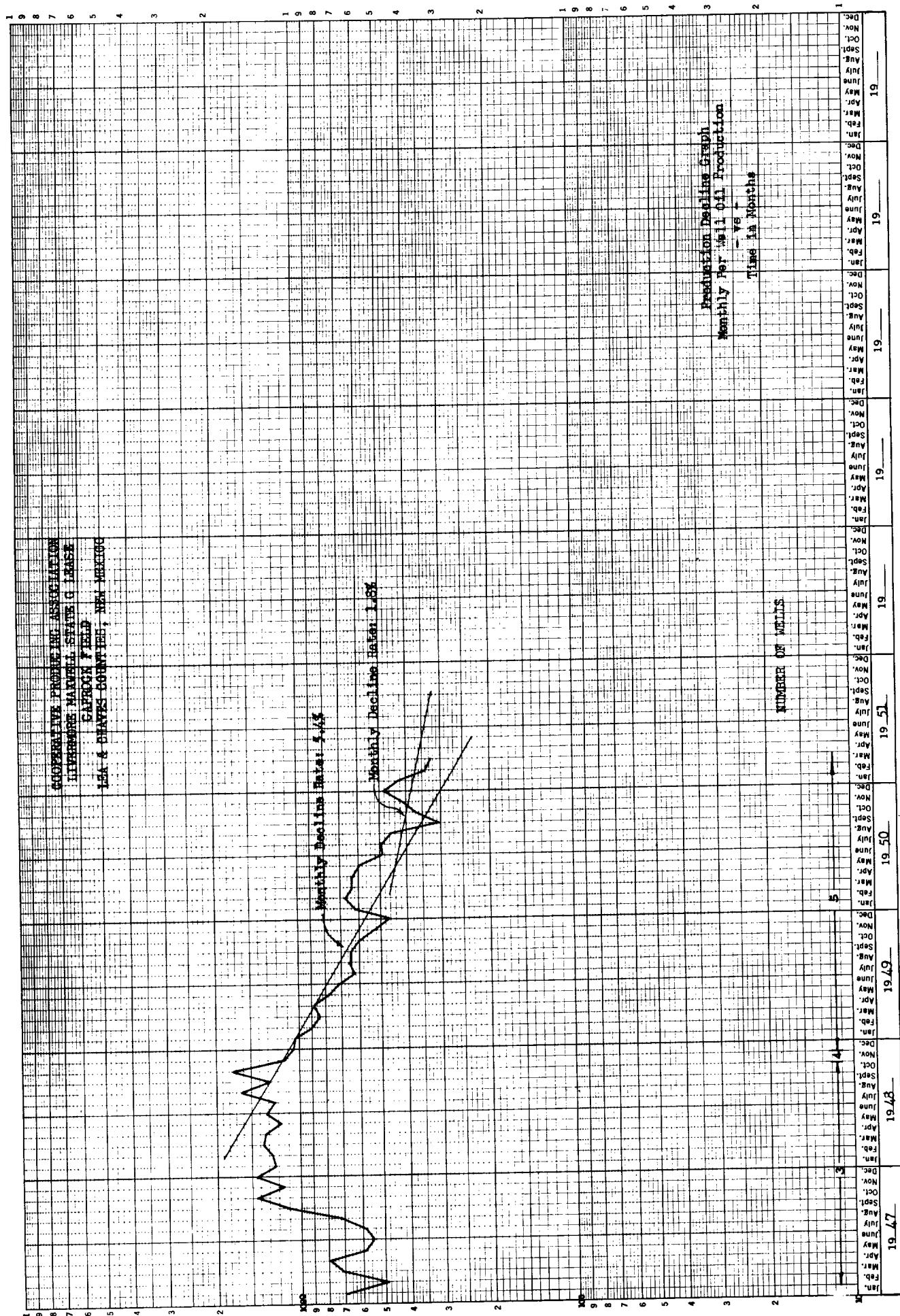
CITIZENS SERVICE OIL COMPANY
STATE T. LEASE
CLARK COUNTY, TEXAS
LAW & CHAPMAN, NEW MEXICO

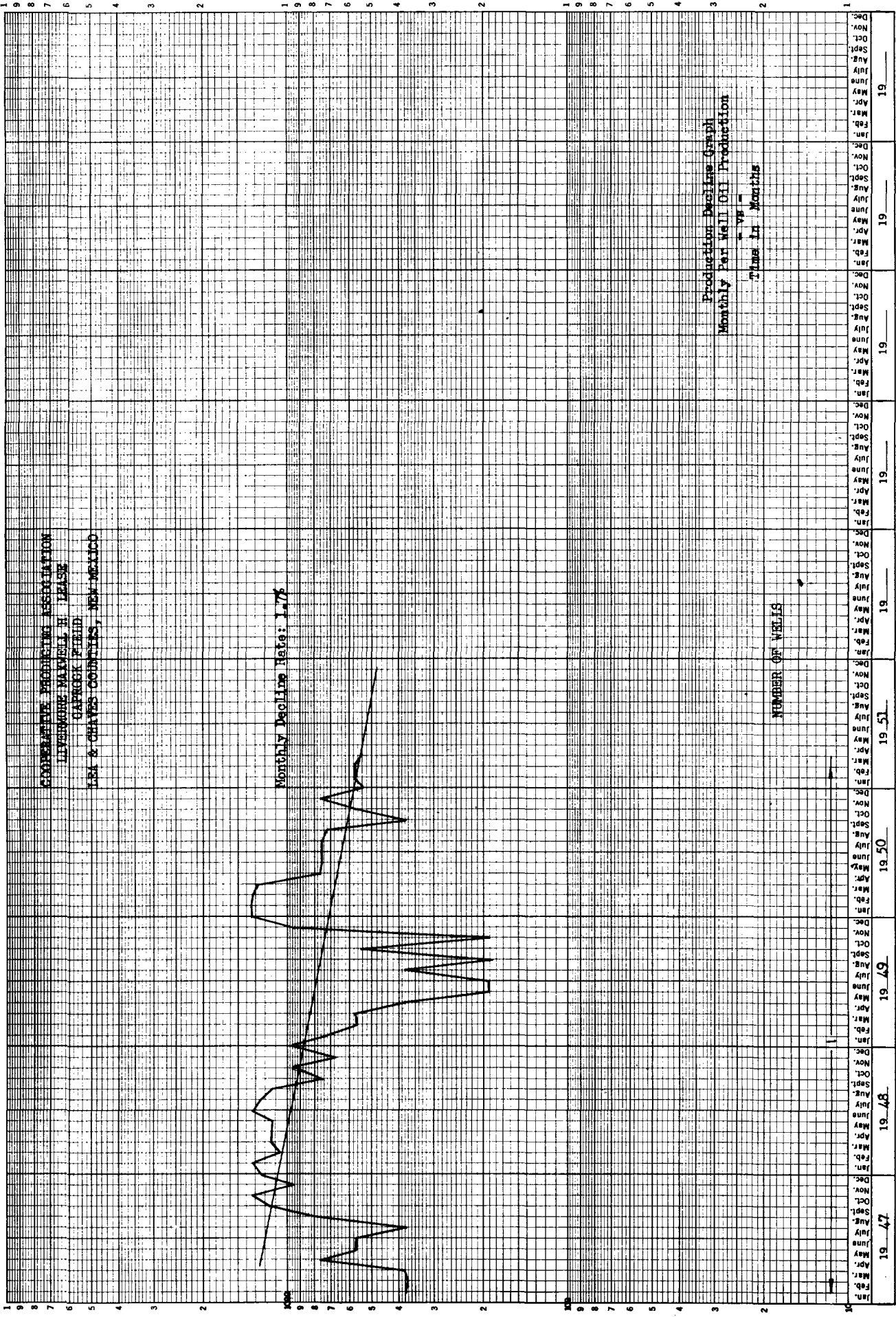
MONTHLY PER WELL OIL PRODUCTION IN BARRELS

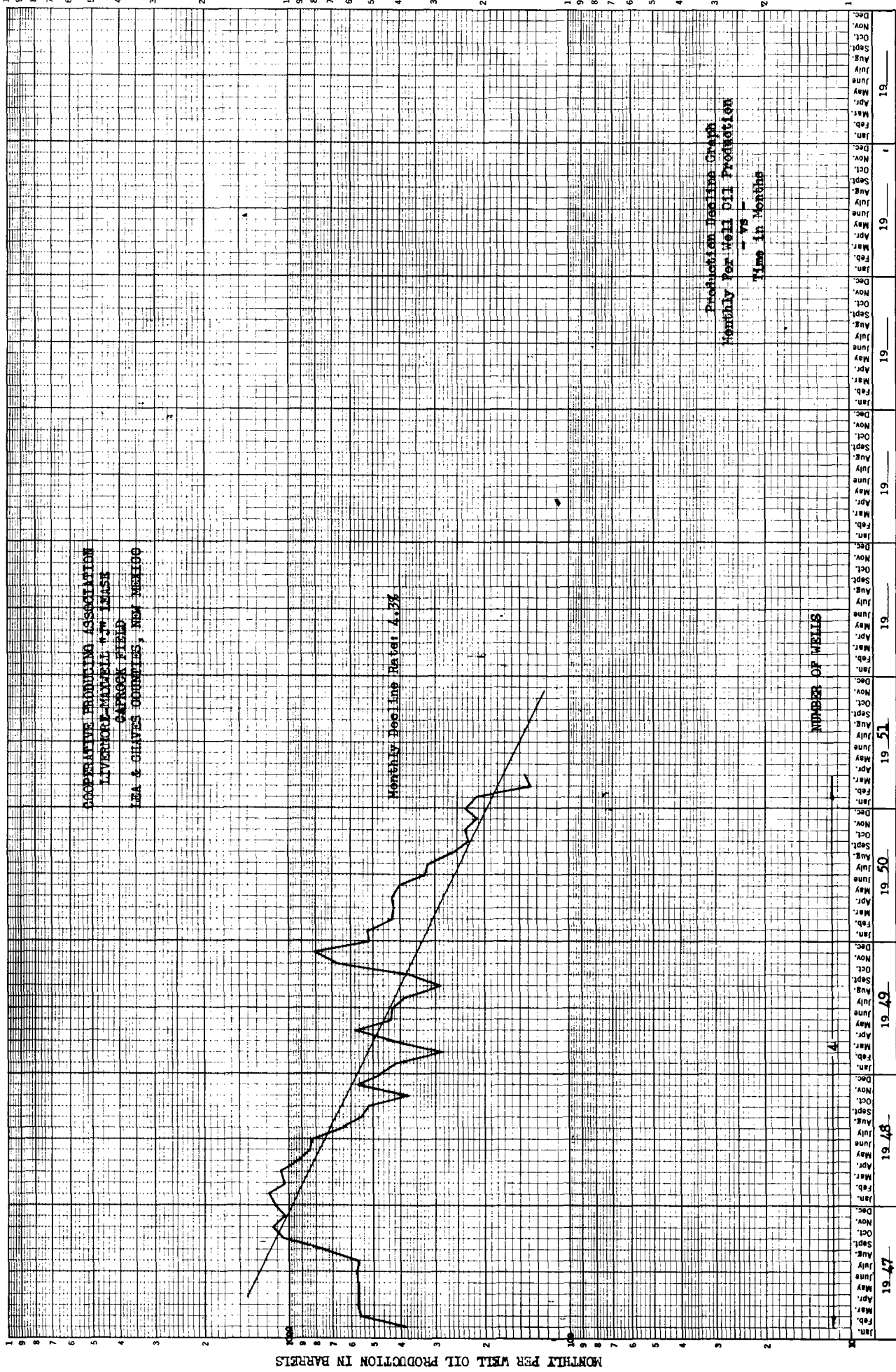




MONTHLY PER WELL OIL PRODUCTION IN BARRELS

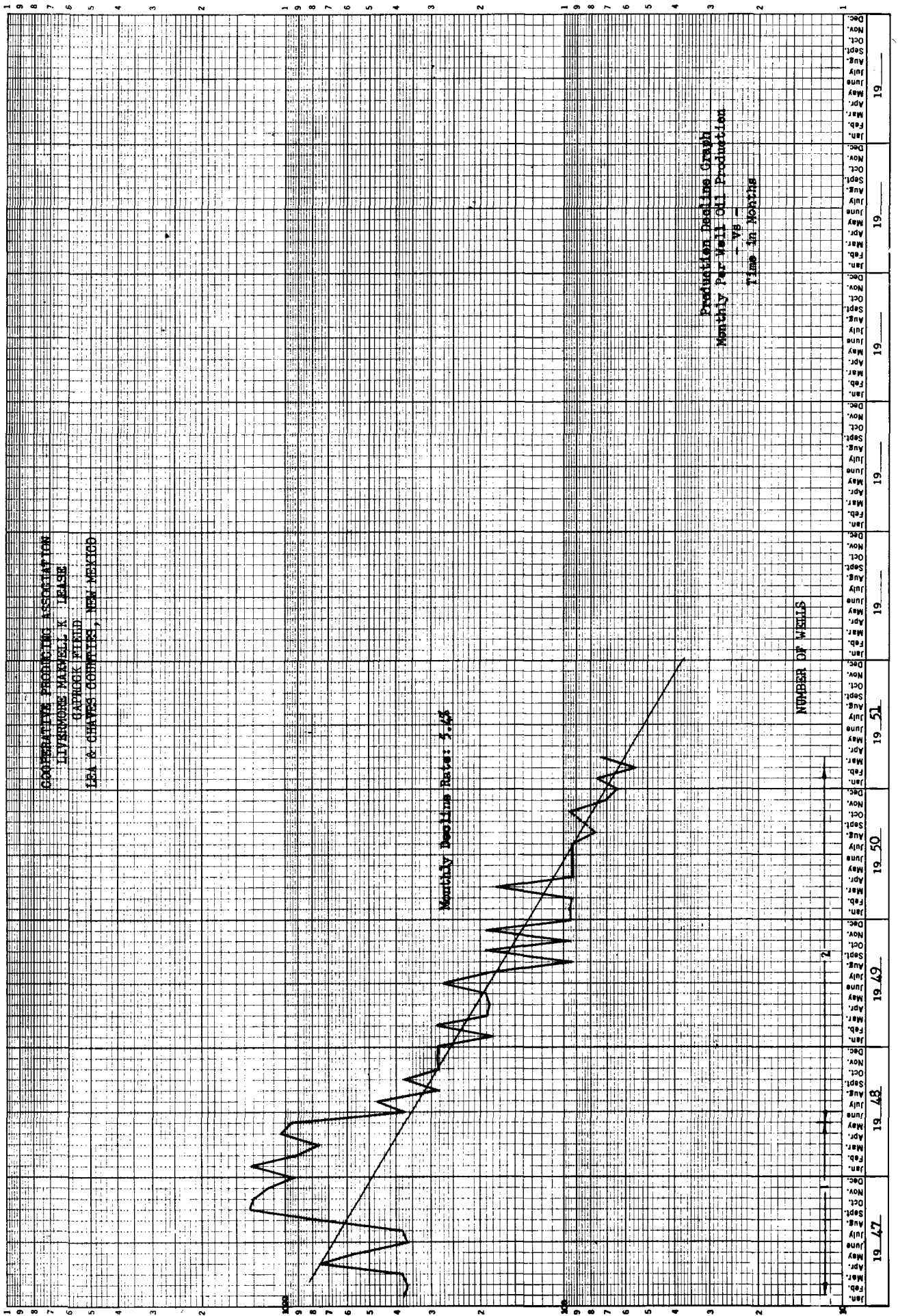




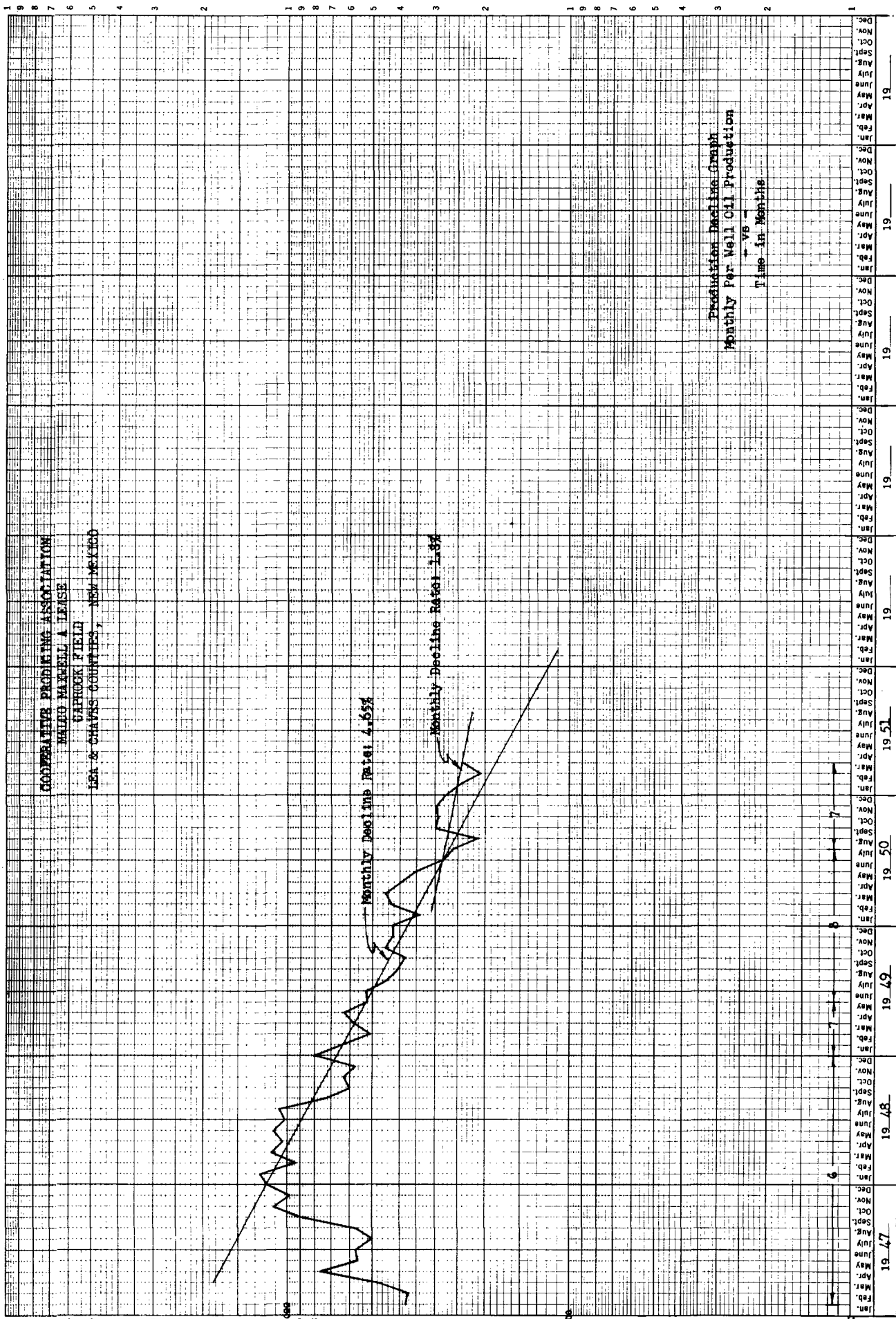


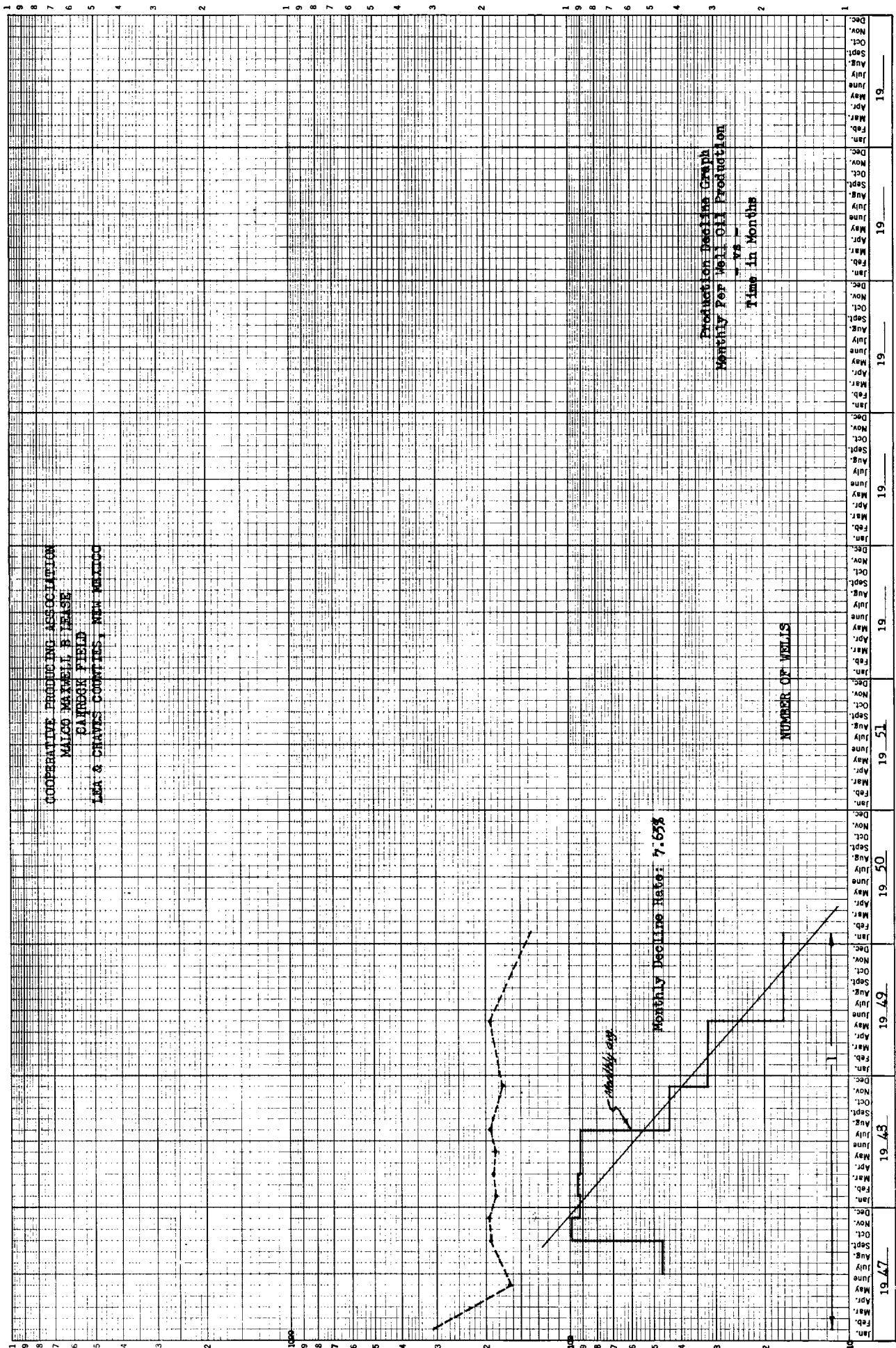
MONTHLY PER WELL OIL PRODUCTION IN BARRELS

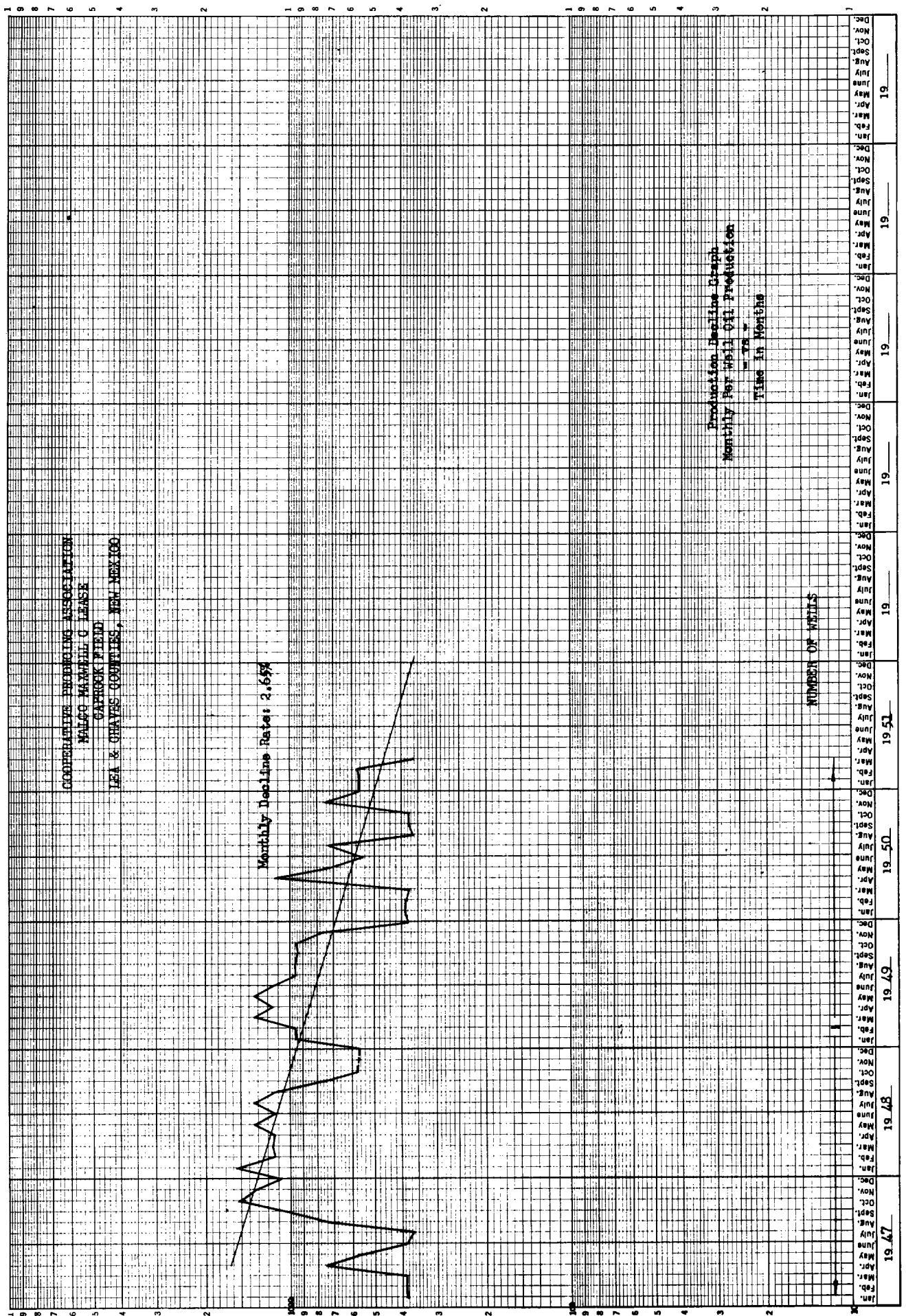
MONTHLY PER WELL OIL PRODUCTION IN BARRELS

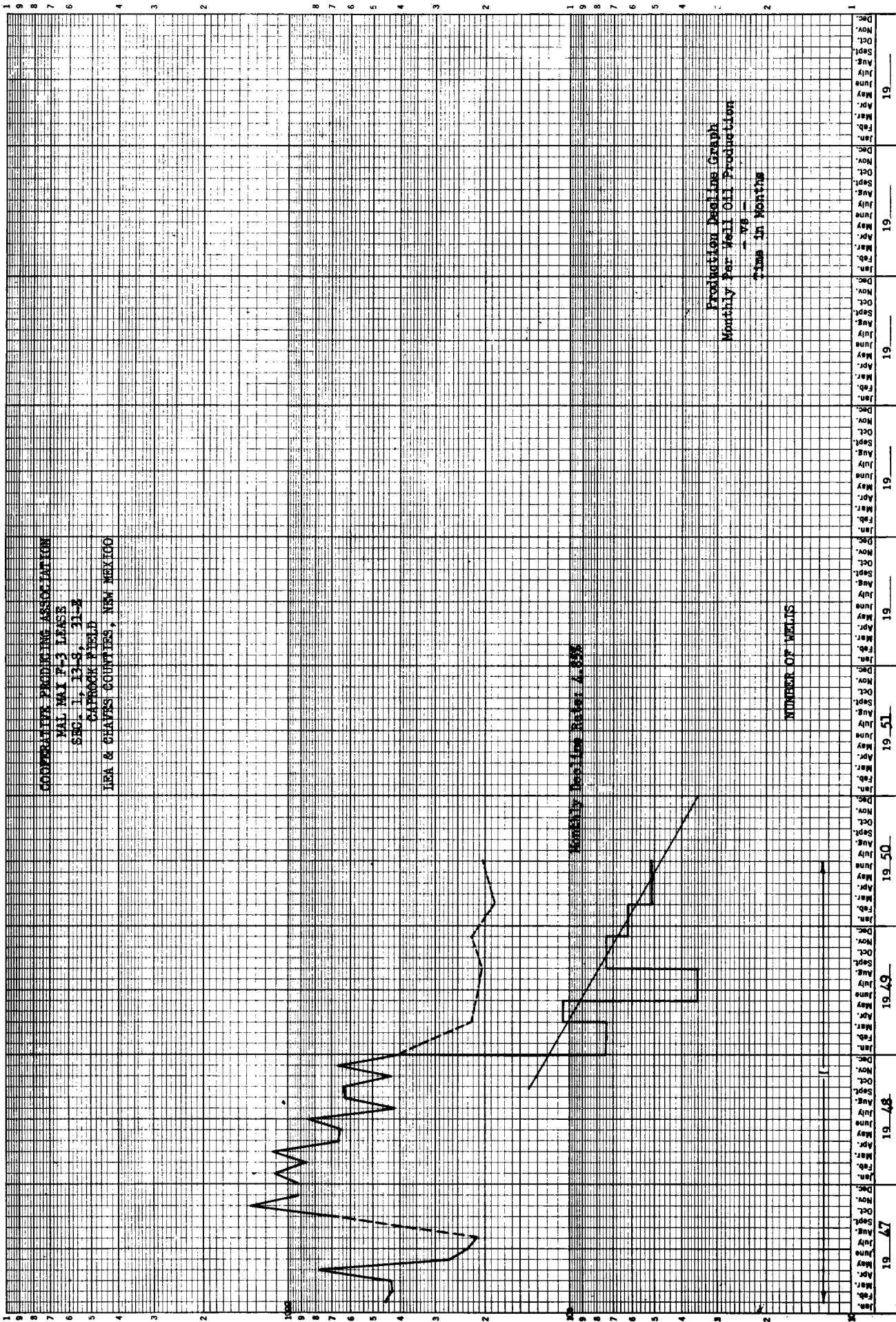


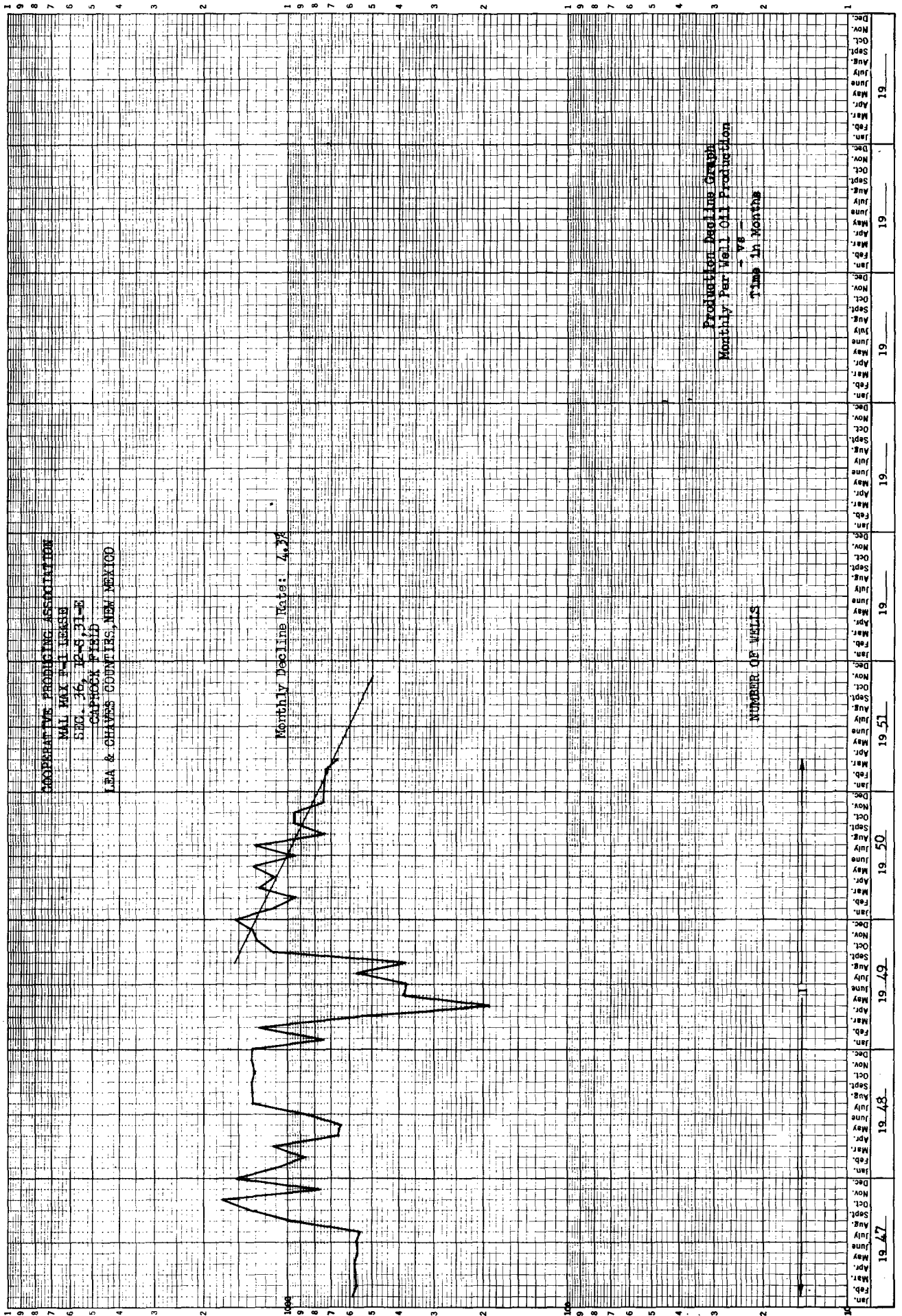
MONTHLY PER WELL OIL PRODUCTION IN BARRELS

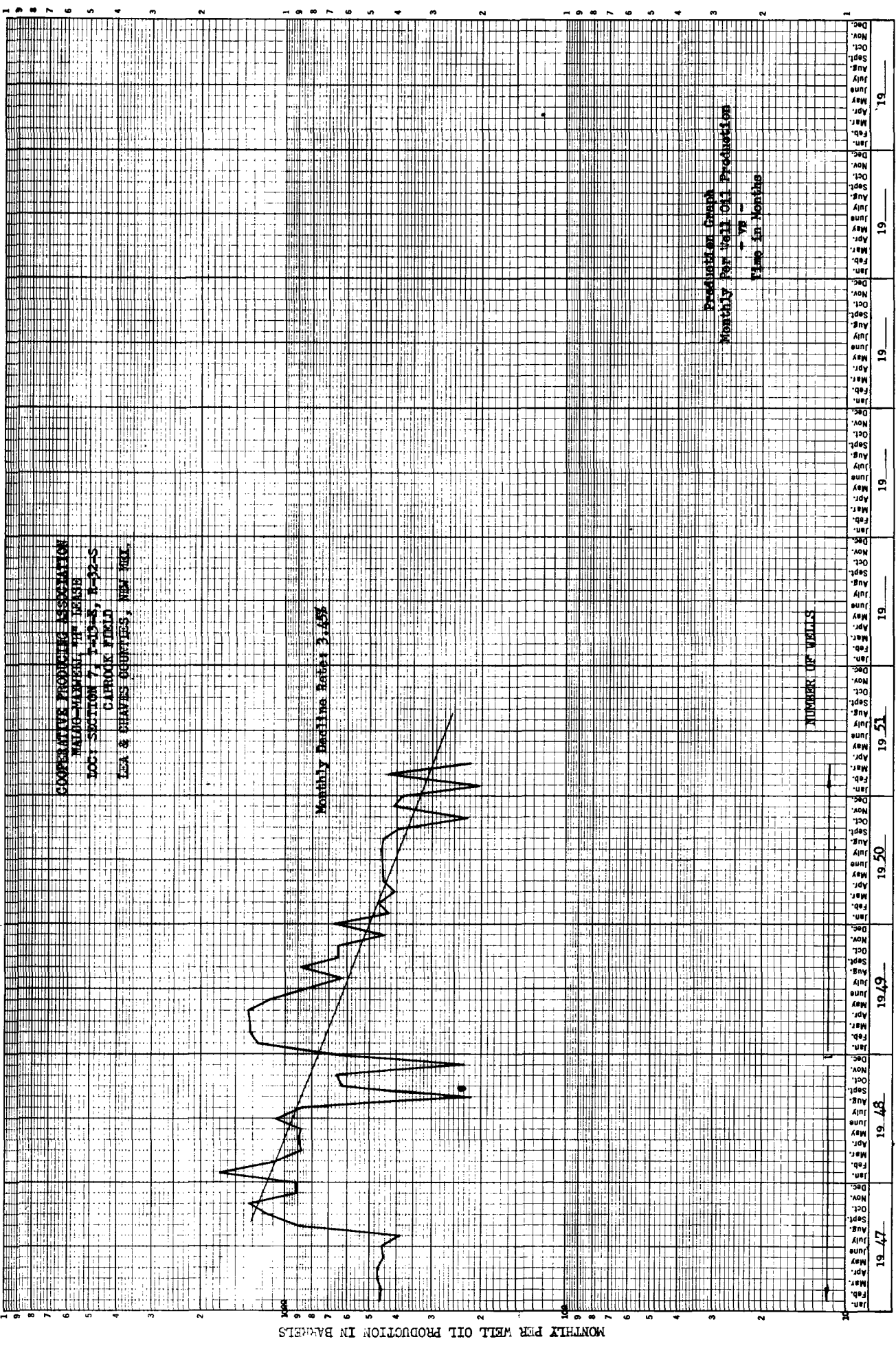




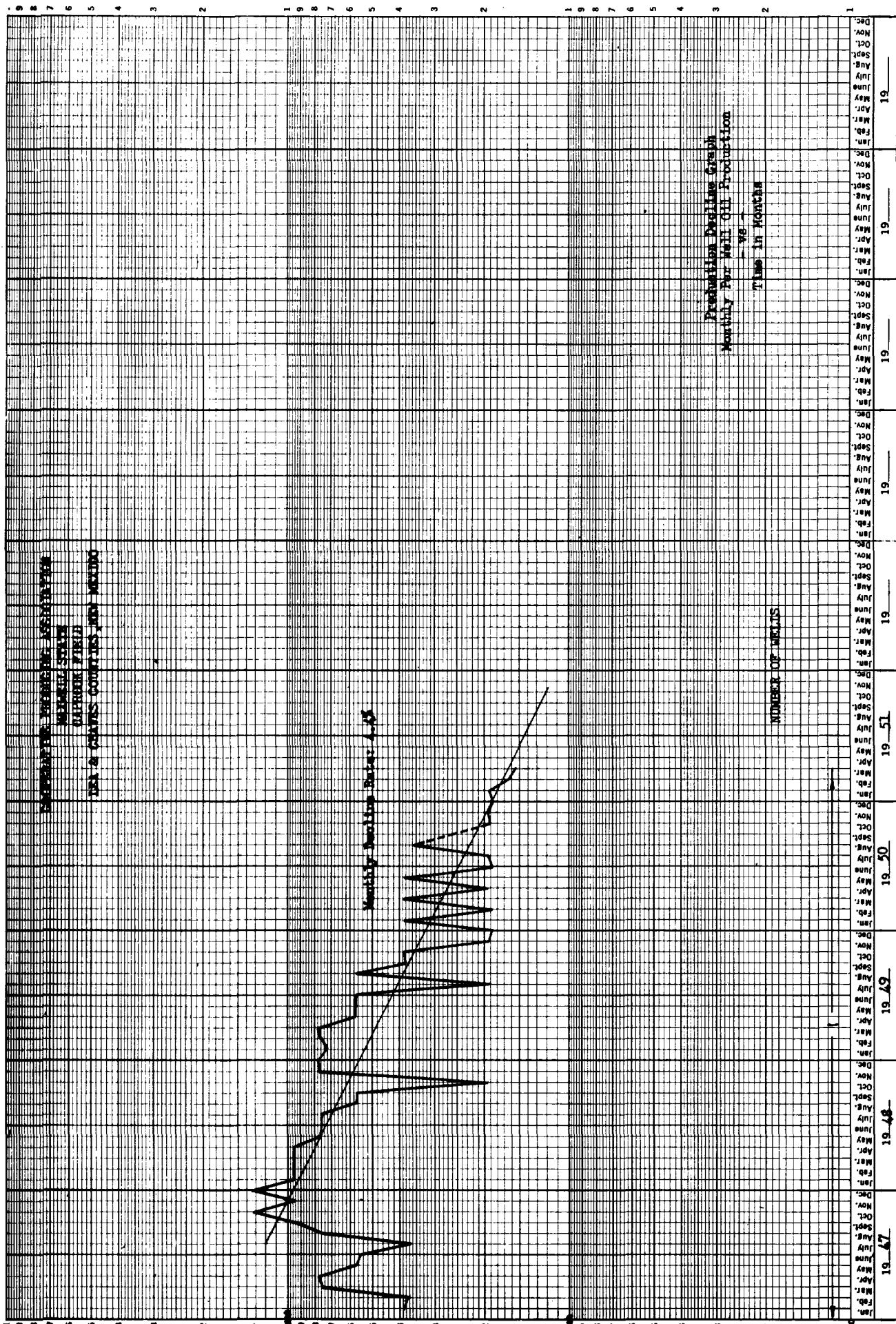








MONTHLY PER WELL OIL PRODUCTION IN BARRELS



COOPERATIVE PRODUCING ASSOCIATION
MCQUEEN LEASE
CATPOCK FIELD
LEA & CHAVES COUNTIES, NEW MEXICO

Production Decline Graph
Monthly Per Well Oil Production
vs.
Time in Months

MONTHLY DECLINE RATE: 7.5%

MONTHLY AVG

NUMBER OF WELLS

Month	Number of Wells	Monthly Avg Production (bbl)	Monthly Production Rate (bbl)
Jan. 1947	1	4.0	4.0
Feb. 1947	1	3.8	3.8
Mar. 1947	1	3.6	3.6
Apr. 1947	1	3.4	3.4
May 1947	1	3.2	3.2
June 1947	1	3.0	3.0
July 1947	1	2.8	2.8
Aug. 1947	1	2.6	2.6
Sept. 1947	1	2.4	2.4
Oct. 1947	1	2.2	2.2
Nov. 1947	1	2.0	2.0
Dec. 1947	1	1.8	1.8
Jan. 1948	1	1.6	1.6
Feb. 1948	1	1.4	1.4
Mar. 1948	1	1.2	1.2
Apr. 1948	1	1.0	1.0
May 1948	1	0.8	0.8
June 1948	1	0.6	0.6
July 1948	1	0.4	0.4
Aug. 1948	1	0.2	0.2
Sept. 1948	1	0.1	0.1
Oct. 1948	1	0.0	0.0
Nov. 1948	1	0.0	0.0
Dec. 1948	1	0.0	0.0
Jan. 1949	1	0.0	0.0
Feb. 1949	1	0.0	0.0
Mar. 1949	1	0.0	0.0
Apr. 1949	1	0.0	0.0
May 1949	1	0.0	0.0
June 1949	1	0.0	0.0
July 1949	1	0.0	0.0
Aug. 1949	1	0.0	0.0
Sept. 1949	1	0.0	0.0
Oct. 1949	1	0.0	0.0
Nov. 1949	1	0.0	0.0
Dec. 1949	1	0.0	0.0
Jan. 1950	1	0.0	0.0
Feb. 1950	1	0.0	0.0
Mar. 1950	1	0.0	0.0
Apr. 1950	1	0.0	0.0
May 1950	1	0.0	0.0
June 1950	1	0.0	0.0
July 1950	1	0.0	0.0
Aug. 1950	1	0.0	0.0
Sept. 1950	1	0.0	0.0
Oct. 1950	1	0.0	0.0
Nov. 1950	1	0.0	0.0
Dec. 1950	1	0.0	0.0
Jan. 1951	1	0.0	0.0
Feb. 1951	1	0.0	0.0
Mar. 1951	1	0.0	0.0
Apr. 1951	1	0.0	0.0
May 1951	1	0.0	0.0
June 1951	1	0.0	0.0
July 1951	1	0.0	0.0
Aug. 1951	1	0.0	0.0
Sept. 1951	1	0.0	0.0
Oct. 1951	1	0.0	0.0
Nov. 1951	1	0.0	0.0
Dec. 1951	1	0.0	0.0
Jan. 1952	1	0.0	0.0
Feb. 1952	1	0.0	0.0
Mar. 1952	1	0.0	0.0
Apr. 1952	1	0.0	0.0
May 1952	1	0.0	0.0
June 1952	1	0.0	0.0
July 1952	1	0.0	0.0
Aug. 1952	1	0.0	0.0
Sept. 1952	1	0.0	0.0
Oct. 1952	1	0.0	0.0
Nov. 1952	1	0.0	0.0
Dec. 1952	1	0.0	0.0
Jan. 1953	1	0.0	0.0
Feb. 1953	1	0.0	0.0
Mar. 1953	1	0.0	0.0
Apr. 1953	1	0.0	0.0
May 1953	1	0.0	0.0
June 1953	1	0.0	0.0
July 1953	1	0.0	0.0
Aug. 1953	1	0.0	0.0
Sept. 1953	1	0.0	0.0
Oct. 1953	1	0.0	0.0
Nov. 1953	1	0.0	0.0
Dec. 1953	1	0.0	0.0
Jan. 1954	1	0.0	0.0
Feb. 1954	1	0.0	0.0
Mar. 1954	1	0.0	0.0
Apr. 1954	1	0.0	0.0
May 1954	1	0.0	0.0
June 1954	1	0.0	0.0
July 1954	1	0.0	0.0
Aug. 1954	1	0.0	0.0
Sept. 1954	1	0.0	0.0
Oct. 1954	1	0.0	0.0
Nov. 1954	1	0.0	0.0
Dec. 1954	1	0.0	0.0
Jan. 1955	1	0.0	0.0
Feb. 1955	1	0.0	0.0
Mar. 1955	1	0.0	0.0
Apr. 1955	1	0.0	0.0
May 1955	1	0.0	0.0
June 1955	1	0.0	0.0
July 1955	1</		

COOPERATIVE PRODUCING ASSOCIATION
MCQUEEN LEASE
CATPOCK FIELD
LEA & CHAVES COUNTIES, NEW MEXICO

Production Decline Graph
Monthly Per Well Oil Production
vs.
Time in Months

MONTHLY DECLINE RATE: 7.5%

MONTHLY AVG.

NUMBER OF WELLS

Month	Number of Wells	Monthly Avg. Production (Barrels)	Monthly Production Rate (Barrels)
Jan. 1947	1	2.5	2.5
Jan. 1948	1	2.5	2.5
Jan. 1949	2	2.5	2.5
Jan. 1950	3	2.5	2.5
Jan. 1951	4	2.5	2.5

COOPERATIVE PRODUCING ASSOCIATION
MCQUEEN LEASE
CATPOCK FIELD
LEA & CHAVES COUNTIES, NEW MEXICO

Production Decline Graph
Monthly Per Well Oil Production
vs.
Time in Months

MONTHLY DECLINE RATE: 7.5%

MONTHLY AVG.

NUMBER OF WELLS

Month	Monthly Per Well Oil Production (bbl)	Monthly Average (bbl)	Decline Rate (%)
Jan. 1947	4.0	4.0	7.5
Feb. 1947	3.8	3.8	7.5
Mar. 1947	3.6	3.6	7.5
Apr. 1947	3.4	3.4	7.5
May 1947	3.2	3.2	7.5
June 1947	3.0	3.0	7.5
July 1947	2.8	2.8	7.5
Aug. 1947	2.6	2.6	7.5
Sept. 1947	2.4	2.4	7.5
Oct. 1947	2.2	2.2	7.5
Nov. 1947	2.0	2.0	7.5
Dec. 1947	1.8	1.8	7.5
Jan. 1948	1.6	1.6	7.5
Feb. 1948	1.4	1.4	7.5
Mar. 1948	1.2	1.2	7.5
Apr. 1948	1.0	1.0	7.5
May 1948	0.8	0.8	7.5
June 1948	0.6	0.6	7.5
July 1948	0.4	0.4	7.5
Aug. 1948	0.2	0.2	7.5
Sept. 1948	0.1	0.1	7.5
Oct. 1948	0.0	0.0	7.5
Nov. 1948	0.0	0.0	7.5
Dec. 1948	0.0	0.0	7.5

COOPERATIVE PRODUCING ASSOCIATION
MCQUEEN LEASE
CATPOCK FIELD
LEA & CHAYES COUNTRIES, NEW MEXICO

Production Decline Graph
Monthly Per Well Oil Production
vs.
Time in Months

MONTHLY DECLINE RATE: 7.5%

MONTHLY AVG

NUMBER OF WELLS

Month	Number of Wells	Monthly Avg (Barrels)	Monthly Production Rate (Barrels)
Jan 47	1	1.5	1.5
Apr 47	1	1.5	1.5
Jul 47	1	1.5	1.5
Oct 47	1	1.5	1.5
Jan 48	1	1.5	1.5
Apr 48	1	1.5	1.5
Jul 48	1	1.5	1.5
Oct 48	1	1.5	1.5
Jan 49	1	1.5	1.5
Apr 49	1	1.5	1.5
Jul 49	1	1.5	1.5
Oct 49	1	1.5	1.5
Jan 50	1	1.5	1.5
Apr 50	1	1.5	1.5
Jul 50	1	1.5	1.5
Oct 50	1	1.5	1.5
Jan 51	1	1.5	1.5
Apr 51	1	1.5	1.5
Jul 51	1	1.5	1.5
Oct 51	1	1.5	1.5
Jan 52	1	1.5	1.5
Apr 52	1	1.5	1.5
Jul 52	1	1.5	1.5
Oct 52	1	1.5	1.5
Jan 53	1	1.5	1.5
Apr 53	1	1.5	1.5
Jul 53	1	1.5	1.5
Oct 53	1	1.5	1.5
Jan 54	1	1.5	1.5
Apr 54	1	1.5	1.5
Jul 54	1	1.5	1.5
Oct 54	1	1.5	1.5
Jan 55	1	1.5	1.5
Apr 55	1	1.5	1.5
Jul 55	1	1.5	1.5
Oct 55	1	1.5	1.5
Jan 56	1	1.5	1.5
Apr 56	1	1.5	1.5
Jul 56	1	1.5	1.5
Oct 56	1	1.5	1.5
Jan 57	1	1.5	1.5
Apr 57	1	1.5	1.5
Jul 57	1	1.5	1.5
Oct 57	1	1.5	1.5
Jan 58	1	1.5	1.5
Apr 58	1	1.5	1.5
Jul 58	1	1.5	1.5
Oct 58	1	1.5	1.5
Jan 59	1	1.5	1.5
Apr 59	1	1.5	1.5
Jul 59	1	1.5	1.5
Oct 59	1	1.5	1.5
Jan 60	1	1.5	1.5
Apr 60	1	1.5	1.5
Jul 60	1	1.5	1.5
Oct 60	1	1.5	1.5
Jan 61	1	1.5	1.5
Apr 61	1	1.5	1.5
Jul 61	1	1.5	1.5
Oct 61	1	1.5	1.5
Jan 62	1	1.5	1.5
Apr 62	1	1.5	1.5
Jul 62	1	1.5	1.5
Oct 62	1	1.5	1.5
Jan 63	1	1.5	1.5
Apr 63	1	1.5	1.5
Jul 63	1	1.5	1.5
Oct 63	1	1.5	1.5
Jan 64	1	1.5	1.5
Apr 64	1	1.5	1.5
Jul 64	1	1.5	1.5
Oct 64	1	1.5	1.5
Jan 65	1	1.5	1.5
Apr 65	1	1.5	1.5
Jul 65	1	1.5	1.5
Oct 65	1	1.5	1.5
Jan 66	1	1.5	1.5
Apr 66	1	1.5	1.5
Jul 66	1	1.5	1.5
Oct 66	1	1.5	1.5
Jan 67	1	1.5	1.5
Apr 67	1	1.5	1.5
Jul 67	1	1.5	1.5
Oct 67	1	1.5	1.5
Jan 68	1	1.5	1.5
Apr 68	1	1.5	1.5
Jul 68	1	1.5	1.5
Oct 68	1	1.5	1.5
Jan 69	1	1.5	1.5
Apr 69	1	1.5	1.5
Jul 69	1	1.5	1.5
Oct 69	1	1.5	1.5
Jan 70	1	1.5	1.5
Apr 70	1	1.5	1.5
Jul 70	1	1.5	1.5
Oct 70	1	1.5	1.5
Jan 71	1	1.5	1.5
Apr 71	1	1.5	1.5
Jul 71	1	1.5	1.5
Oct 71	1	1.5	1.5
Jan 72	1	1.5	1.5
Apr 72	1	1.5	1.5
Jul 72	1	1.5	1.5
Oct 72	1	1.5	1.5
Jan 73	1	1.5	1.5
Apr 73	1	1.5	1.5
Jul 73	1	1.5	1.5
Oct 73	1	1.5	1.5
Jan 74			

COOPERATIVE PRODUCING ASSOCIATION
MCQUEEN LEASE
CATPOCK FIELD
LEA & CHAVES COUNTIES, NEW MEXICO

Production Decline Graph
Monthly Per Well Oil Production
vs.
Time in Months

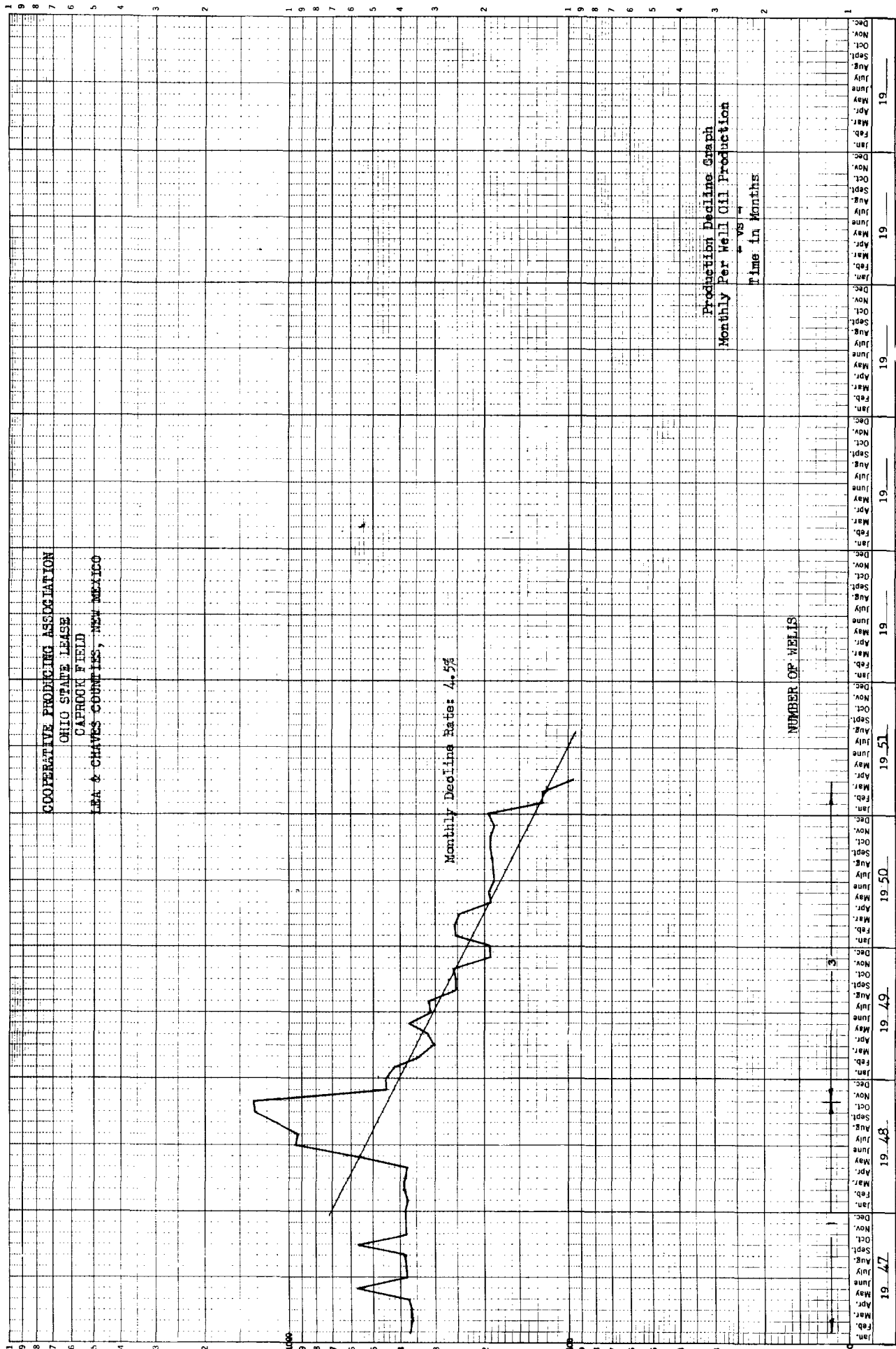
MONTHLY DECLINE RATE: 7.5%

MONTHLY AVG.

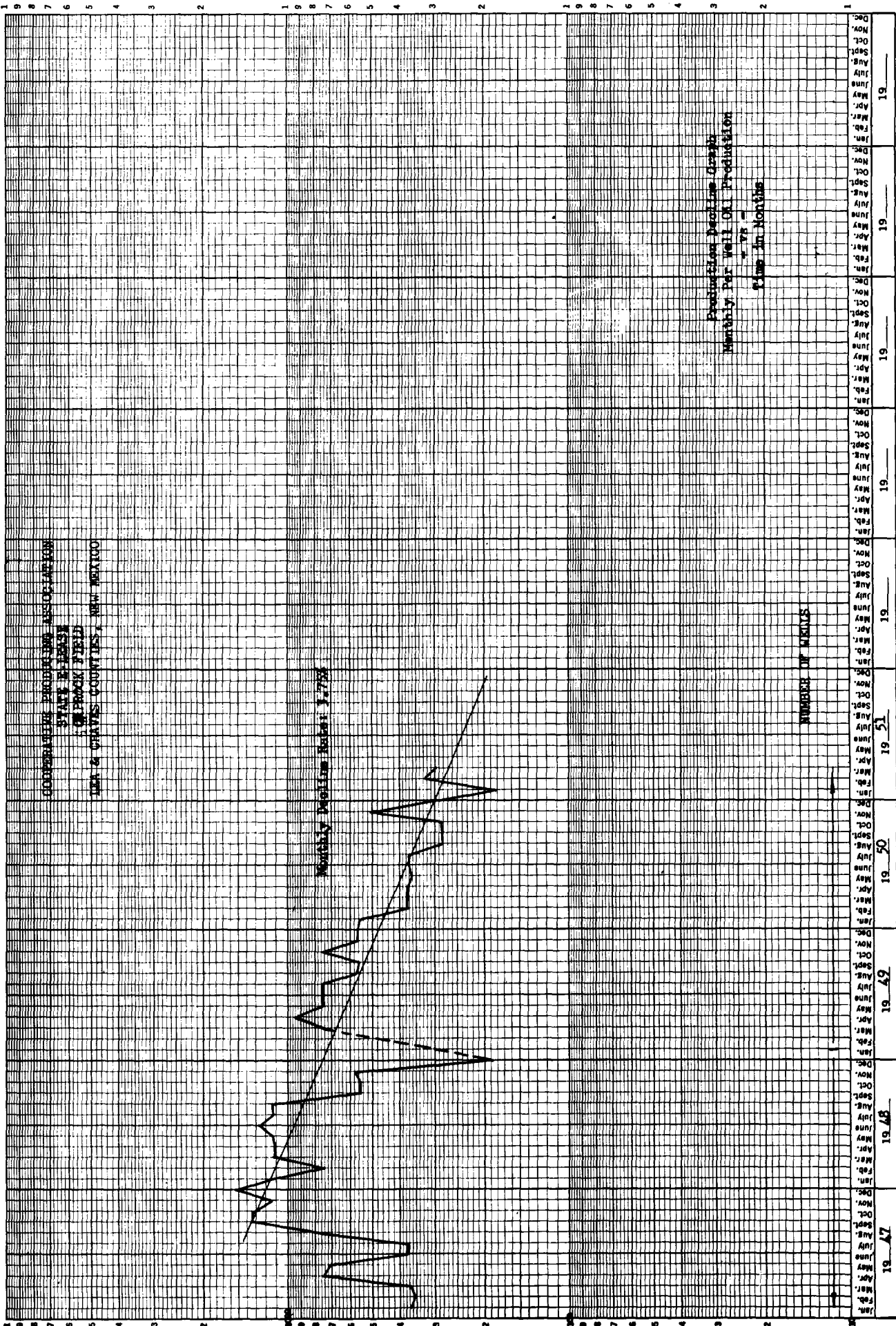
NUMBER OF WELLS

Month	Number of Wells	Monthly Avg. Production (bbl)	Monthly Production Rate (bbl)
Jan. 1947	1	1.0	1.0
Feb. 1947	1	0.9	0.9
Mar. 1947	1	0.8	0.8
Apr. 1947	1	0.7	0.7
May 1947	1	0.6	0.6
June 1947	1	0.5	0.5
July 1947	1	0.4	0.4
Aug. 1947	1	0.3	0.3
Sept. 1947	1	0.2	0.2
Oct. 1947	1	0.1	0.1
Nov. 1947	1	0.1	0.1
Dec. 1947	1	0.1	0.1
Jan. 1948	1	0.1	0.1
Feb. 1948	1	0.1	0.1
Mar. 1948	1	0.1	0.1
Apr. 1948	1	0.1	0.1
May 1948	1	0.1	0.1
June 1948	1	0.1	0.1
July 1948	1	0.1	0.1
Aug. 1948	1	0.1	0.1
Sept. 1948	1	0.1	0.1
Oct. 1948	1	0.1	0.1
Nov. 1948	1	0.1	0.1
Dec. 1948	1	0.1	0.1
Jan. 1949	1	0.1	0.1
Feb. 1949	1	0.1	0.1
Mar. 1949	1	0.1	0.1
Apr. 1949	1	0.1	0.1
May 1949	1	0.1	0.1
June 1949	1	0.1	0.1
July 1949	1	0.1	0.1
Aug. 1949	1	0.1	0.1
Sept. 1949	1	0.1	0.1
Oct. 1949	1	0.1	0.1
Nov. 1949	1	0.1	0.1
Dec. 1949	1	0.1	0.1
Jan. 1950	1	0.1	0.1
Feb. 1950	1	0.1	0.1
Mar. 1950	1	0.1	0.1
Apr. 1950	1	0.1	0.1
May 1950	1	0.1	0.1
June 1950	1	0.1	0.1
July 1950	1	0.1	0.1
Aug. 1950	1	0.1	0.1
Sept. 1950	1	0.1	0.1
Oct. 1950	1	0.1	0.1
Nov. 1950	1	0.1	0.1
Dec. 1950	1	0.1	0.1
Jan. 1951	1	0.1	0.1
Feb. 1951	1	0.1	0.1
Mar. 1951	1	0.1	0.1
Apr. 1951	1	0.1	0.1
May 1951	1	0.1	0.1
June 1951	1	0.1	0.1
July 1951	1	0.1	0.1
Aug. 1951	1	0.1	0.1
Sept. 1951	1	0.1	0.1
Oct. 1951	1	0.1	0.1
Nov. 1951	1	0.1	0.1
Dec. 1951	1	0.1	0.1
Jan. 1952	1	0.1	0.1
Feb. 1952	1	0.1	0.1
Mar. 1952	1	0.1	0.1
Apr. 1952	1	0.1	0.1
May 1952	1	0.1	0.1
June 1952	1	0.1	0.1
July 1952	1	0.1	0.1
Aug. 1952	1	0.1	0.1
Sept. 1952	1	0.1	0.1
Oct. 1952	1	0.1	0.1
Nov. 1952	1	0.1	0.1
Dec. 1952	1	0.1	0.1
Jan. 1953	1	0.1	0.1
Feb. 1953	1	0.1	0.1
Mar. 1953	1	0.1	0.1
Apr. 1953	1	0.1	0.1
May 1953	1	0.1	0.1
June 1953	1	0.1	0.1
July 1953	1	0.1	0.1
Aug. 1953	1	0.1	0.1
Sept. 1953	1	0.1	0.1
Oct. 1953	1	0.1	0.1
Nov. 1953	1	0.1	0.1
Dec. 1953	1	0.1	0.1
Jan. 1954	1	0.1	0.1
Feb. 1954	1	0.1	0.1
Mar. 1954	1	0.1	0.1
Apr. 1954	1	0.1	0.1
May 1954	1	0.1	0.1
June 1954	1	0.1	0.1
July 1954	1	0.1	0.1
Aug. 1954	1	0.1	0.1
Sept. 1954	1	0.1	0.1
Oct. 1954	1	0.1	0.1
Nov. 1954	1	0.1	0.1
Dec. 1954	1	0.1	0.1
Jan. 1955	1	0.1	0.1
Feb. 1955	1	0.1	0.1
Mar. 1955	1	0.1	0.1
Apr. 1955	1	0.1	0.1
May 1955	1	0.1	0.1
June 1955	1	0.1	0.1
July 1955	1		

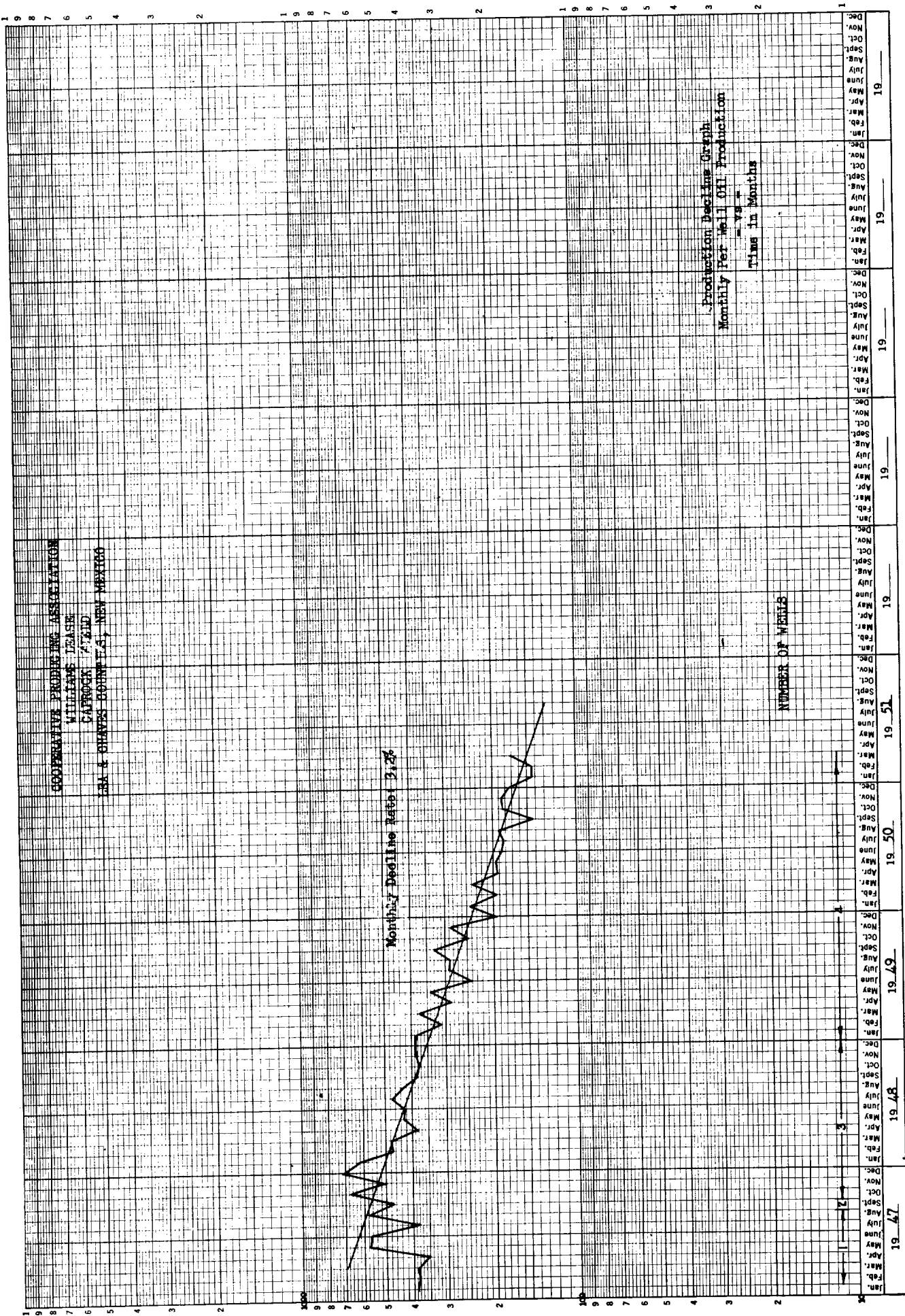
MONTHLY PER WELL OIL PRODUCTION IN BARRELS

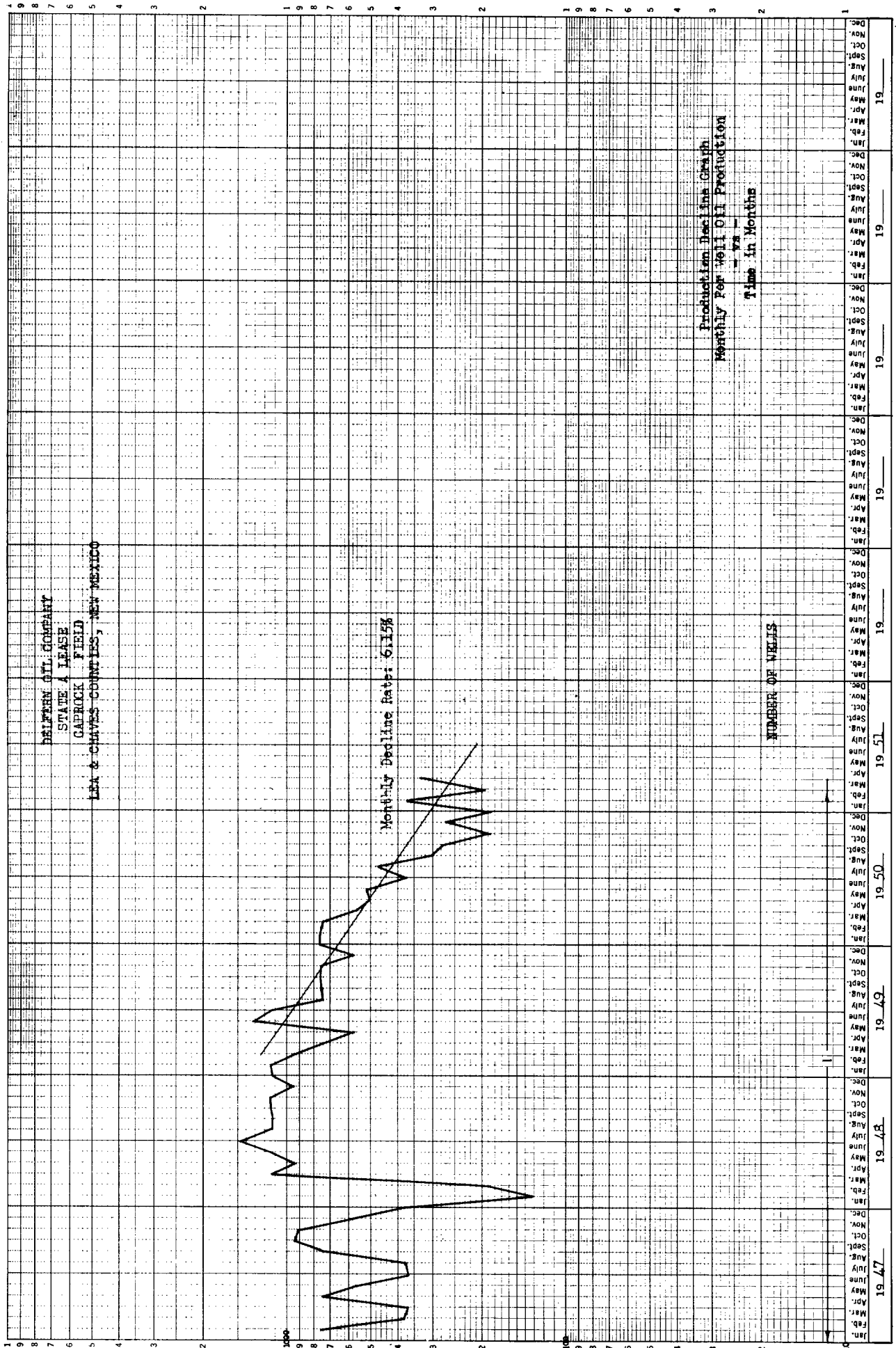


MONTHLY PER WELL OIL PRODUCTION IN BARRELS

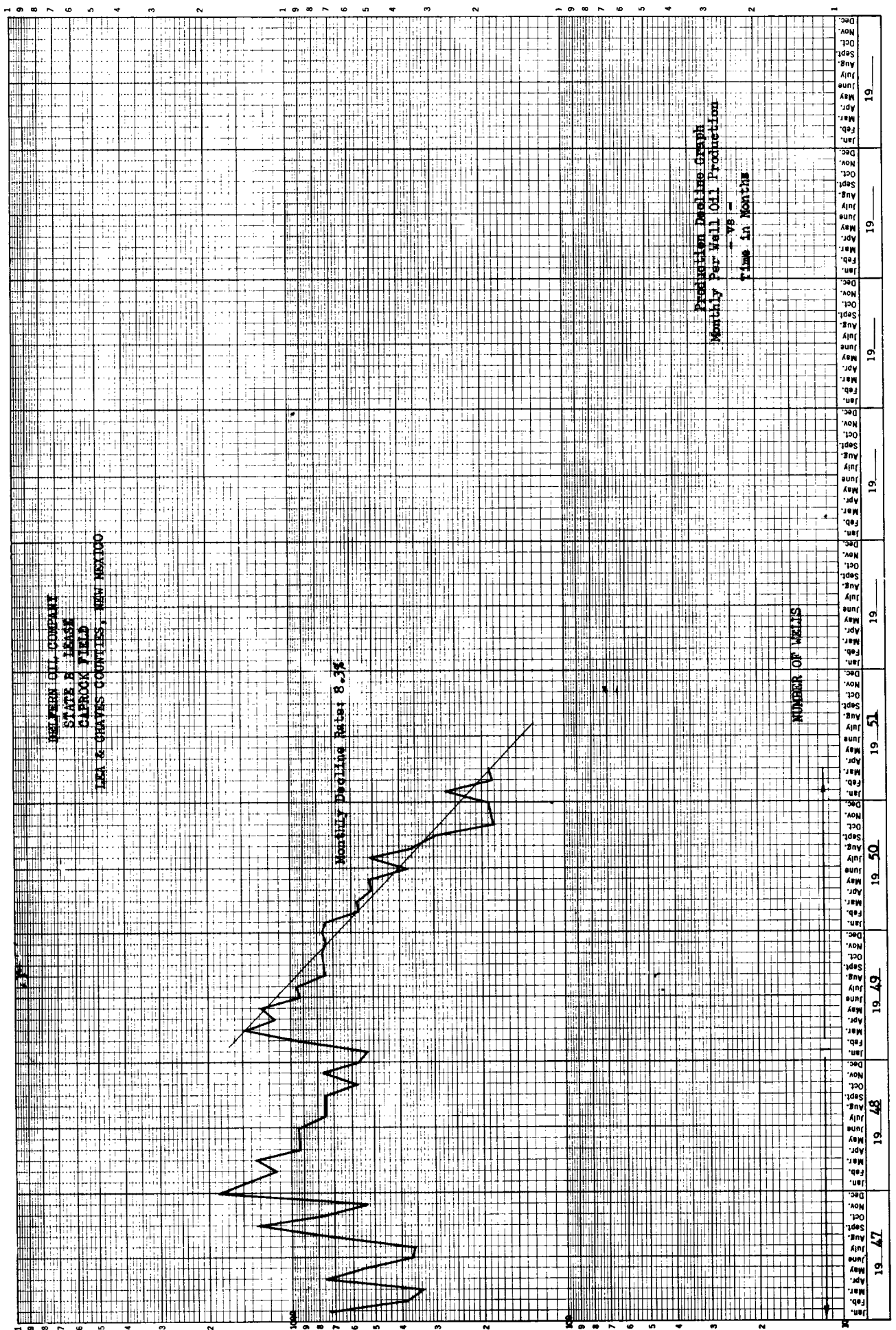


MONTHLY PER WELL OIL PRODUCTION IN BARRELS

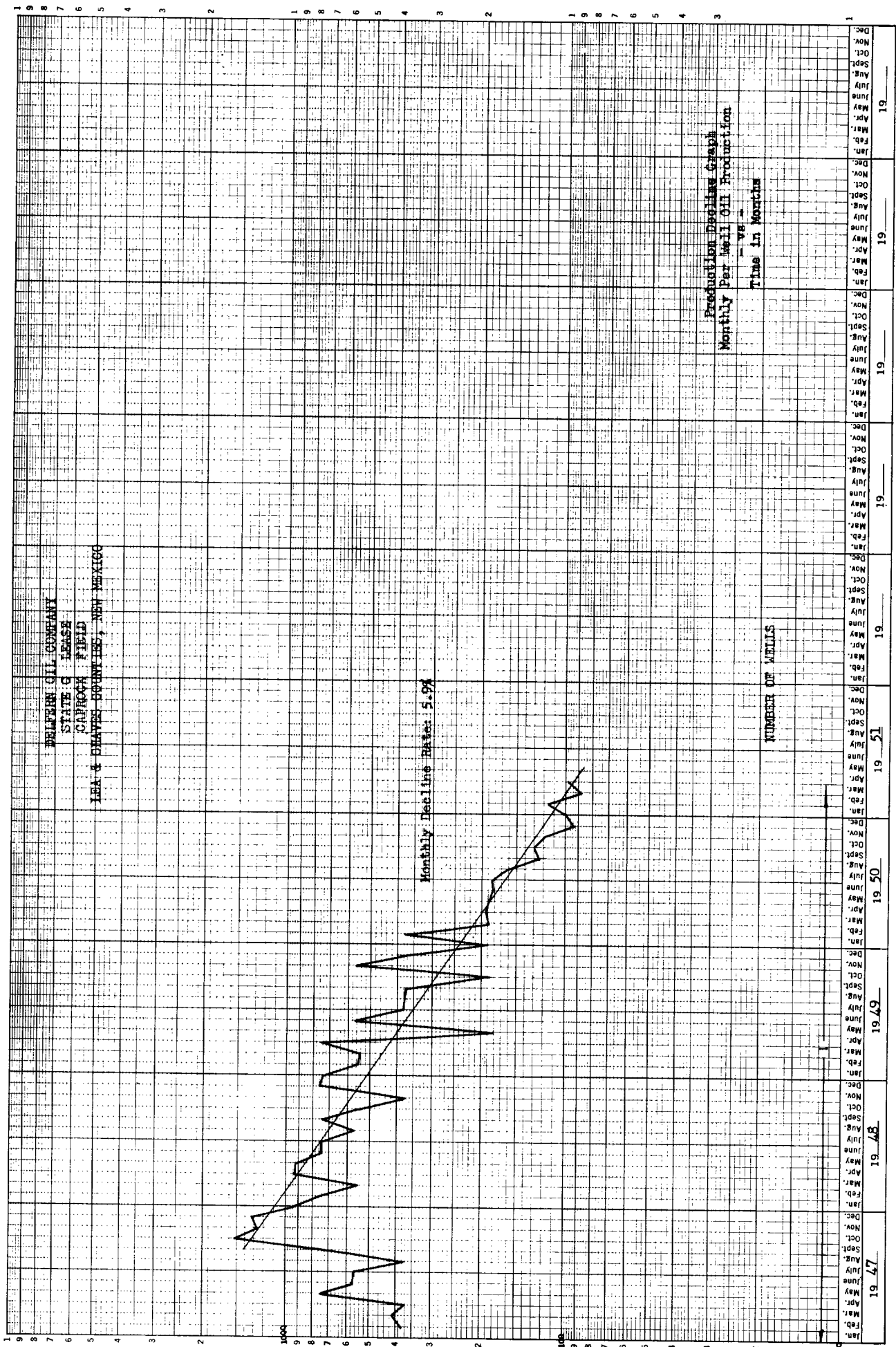




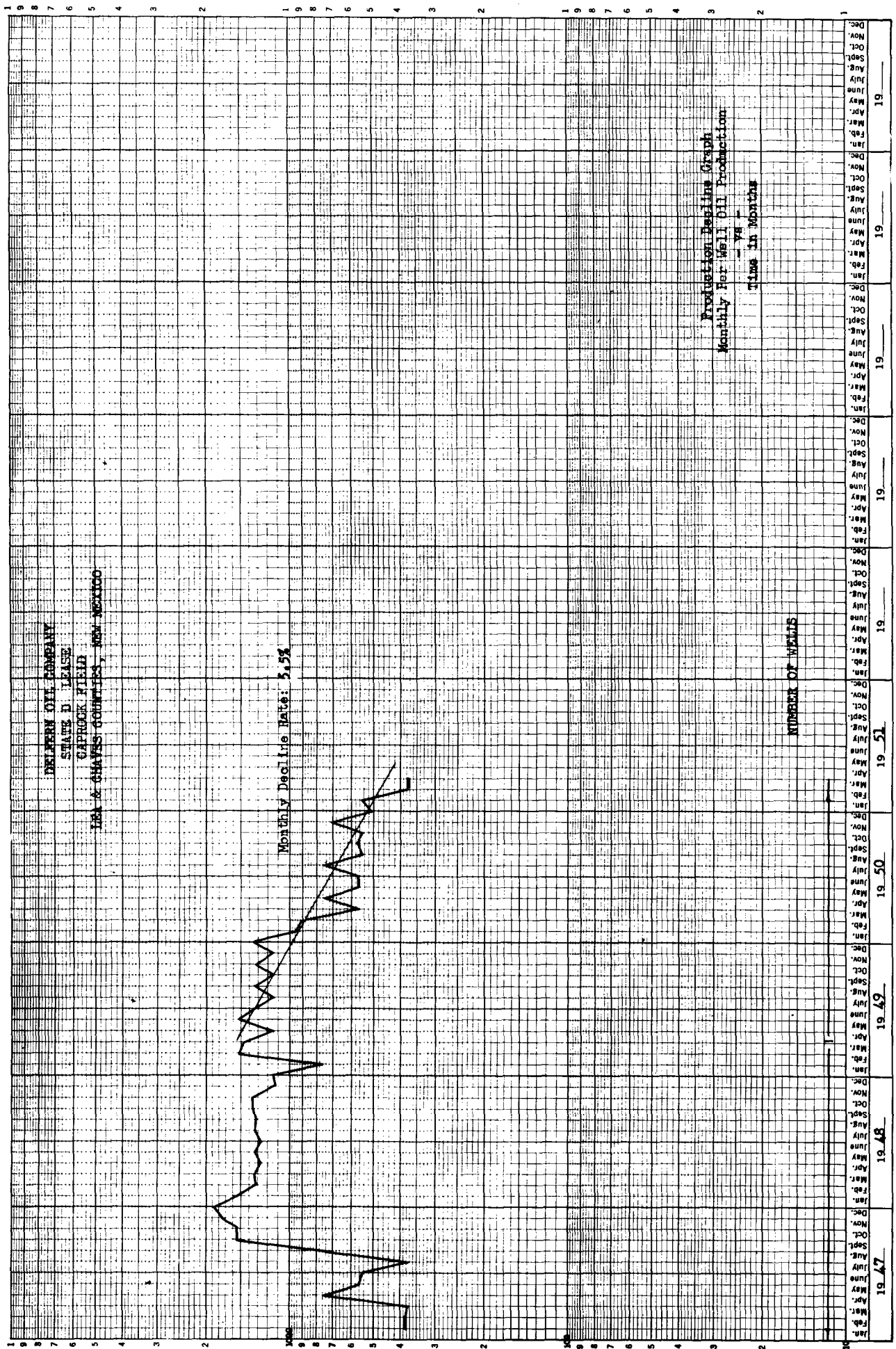
MONTLY PER WELL OIL PRODUCTION IN BARRELS

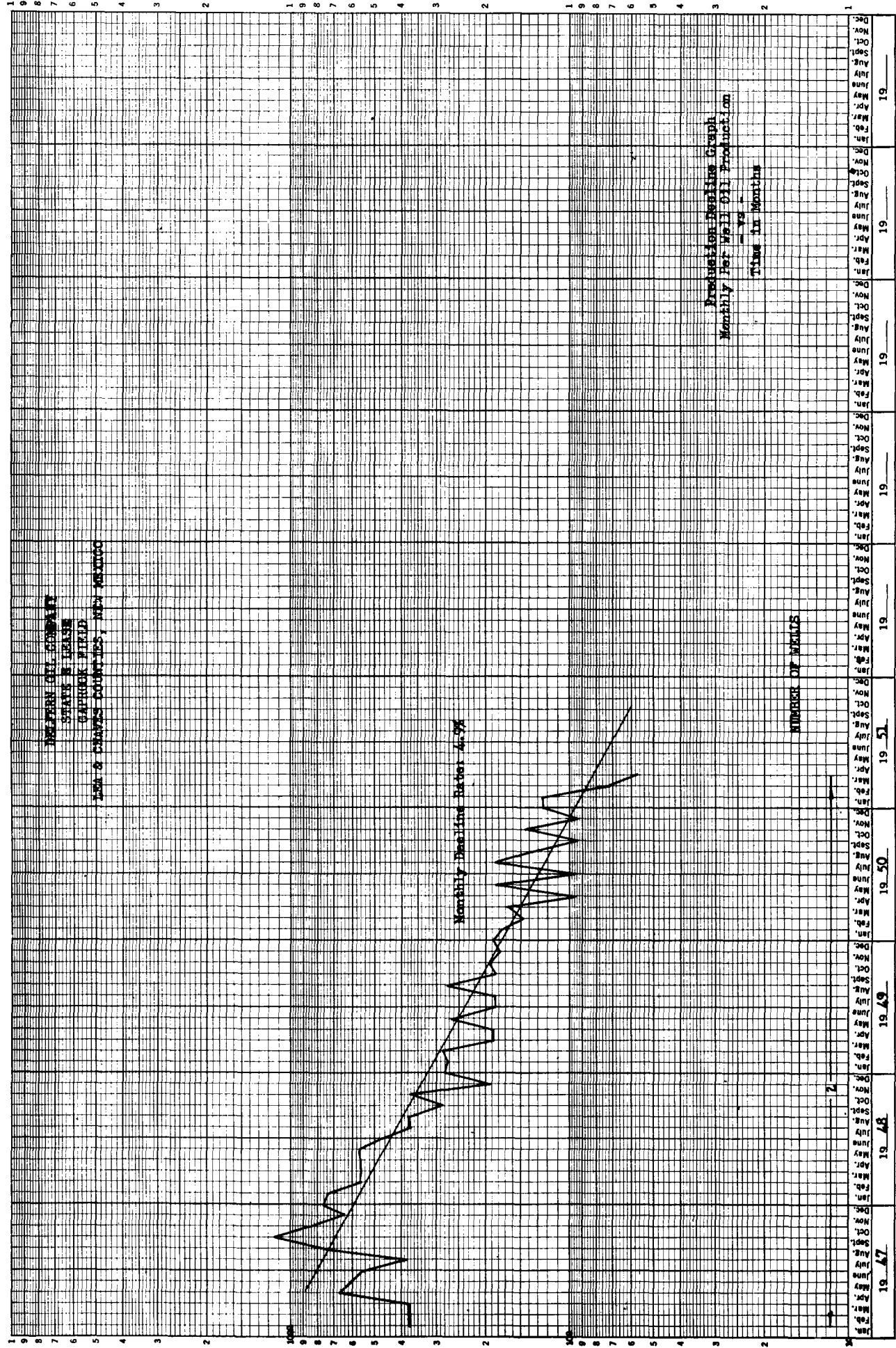


WELFERN OIL COMPANY
STATE OF TEXAS
CLARK COUNTY FIELD
DEA & CHAVES COUNTIES, NEW MEXICO

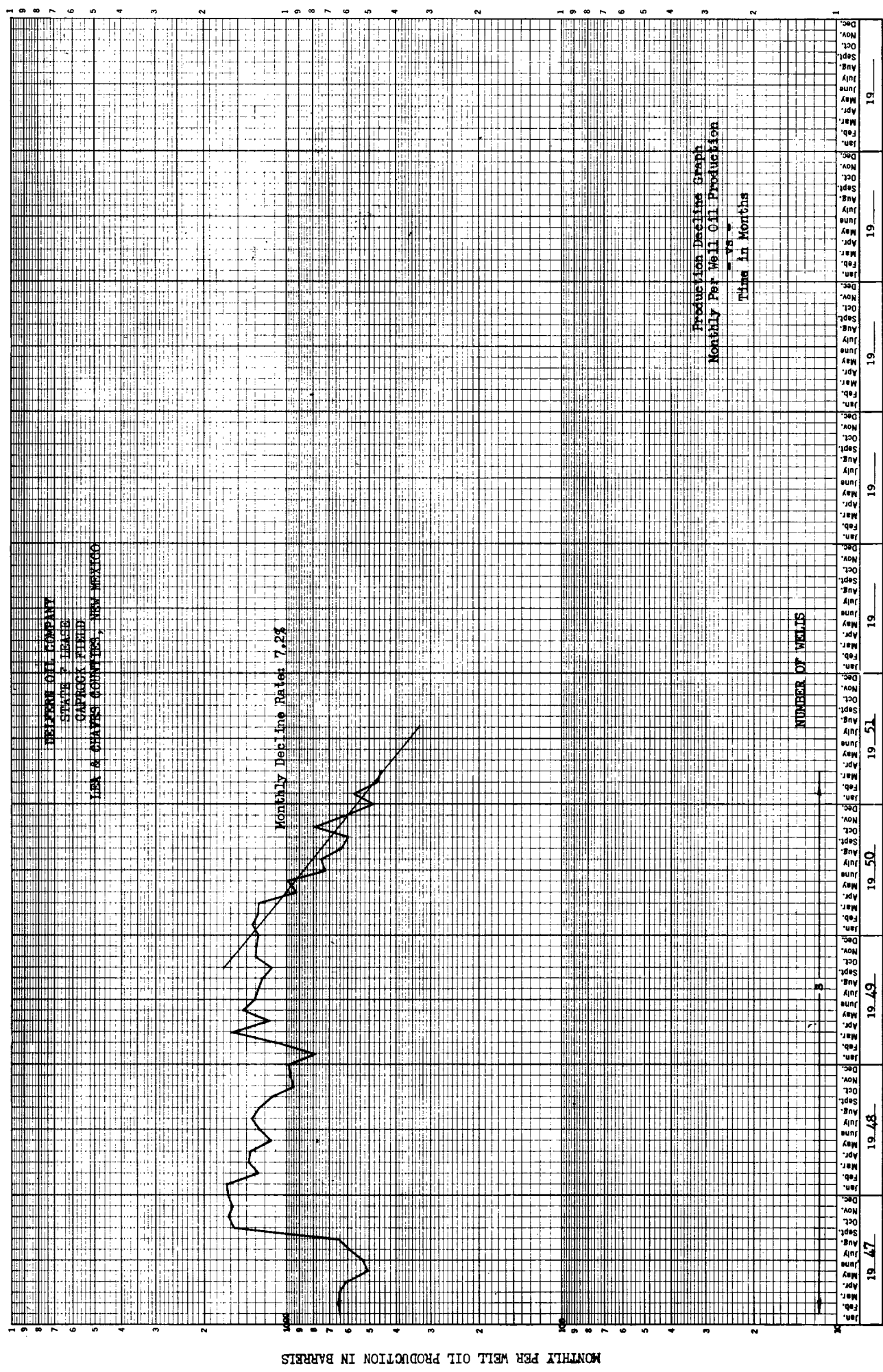


MONTHLY PER WELL OIL PRODUCTION IN BARRELS

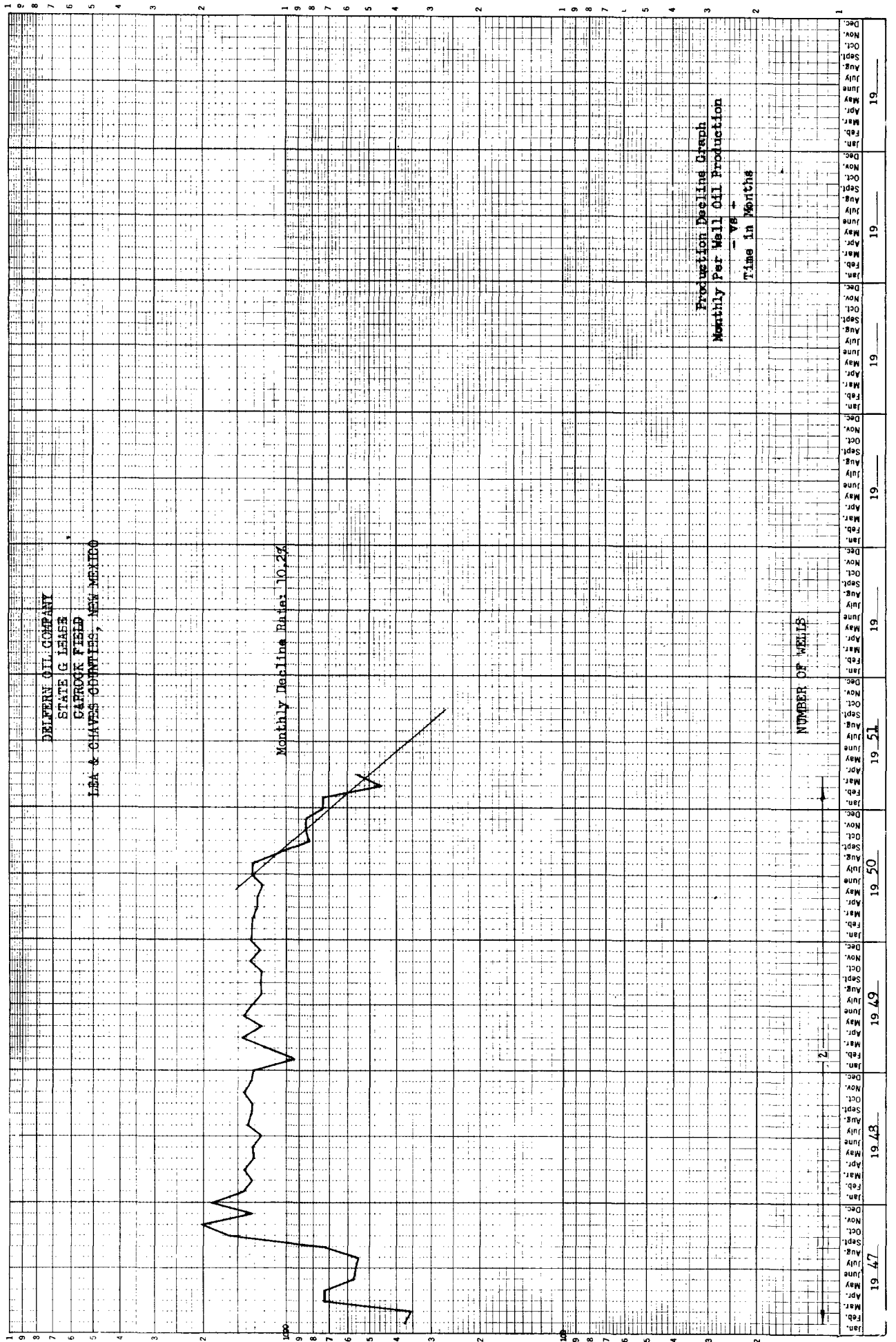


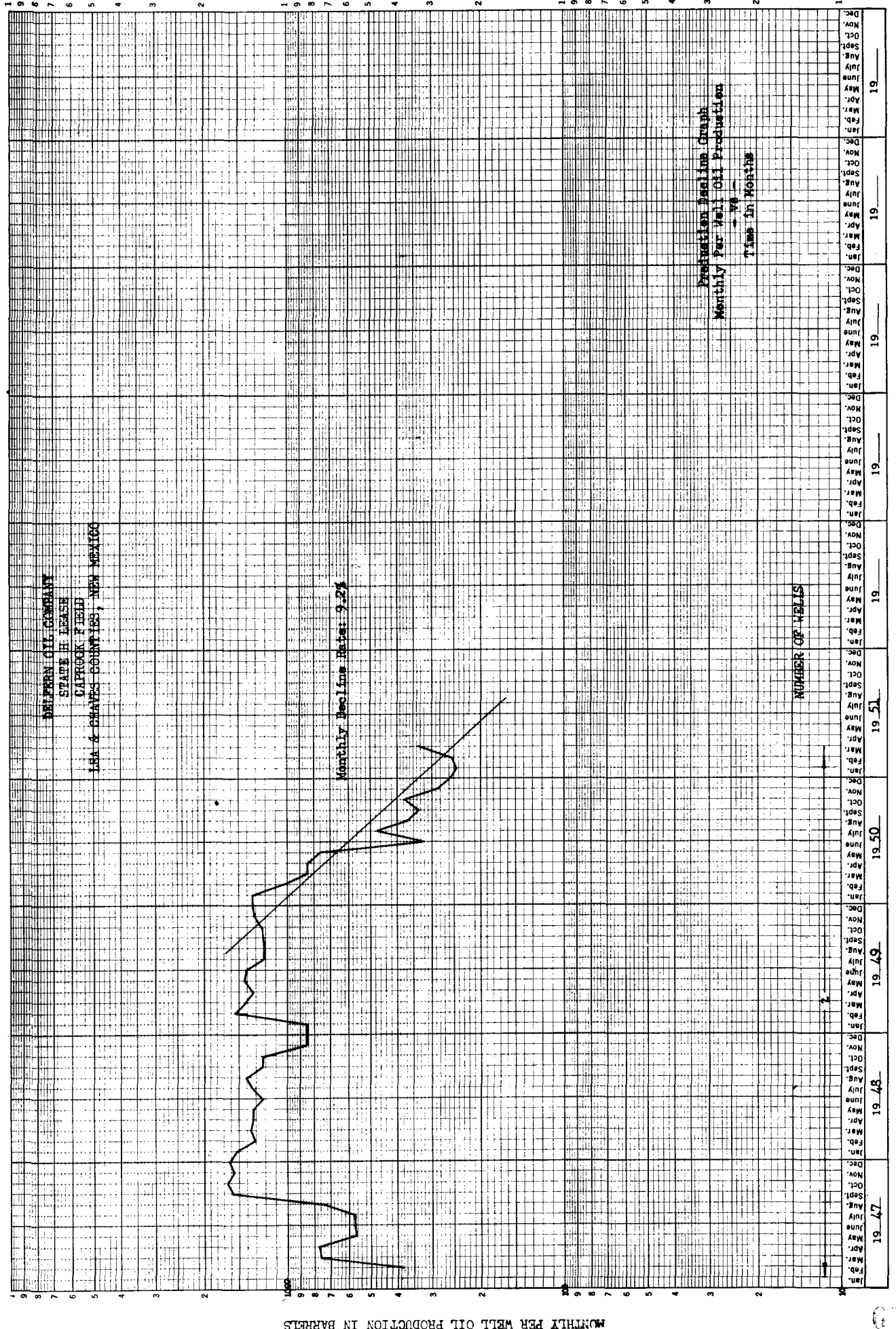


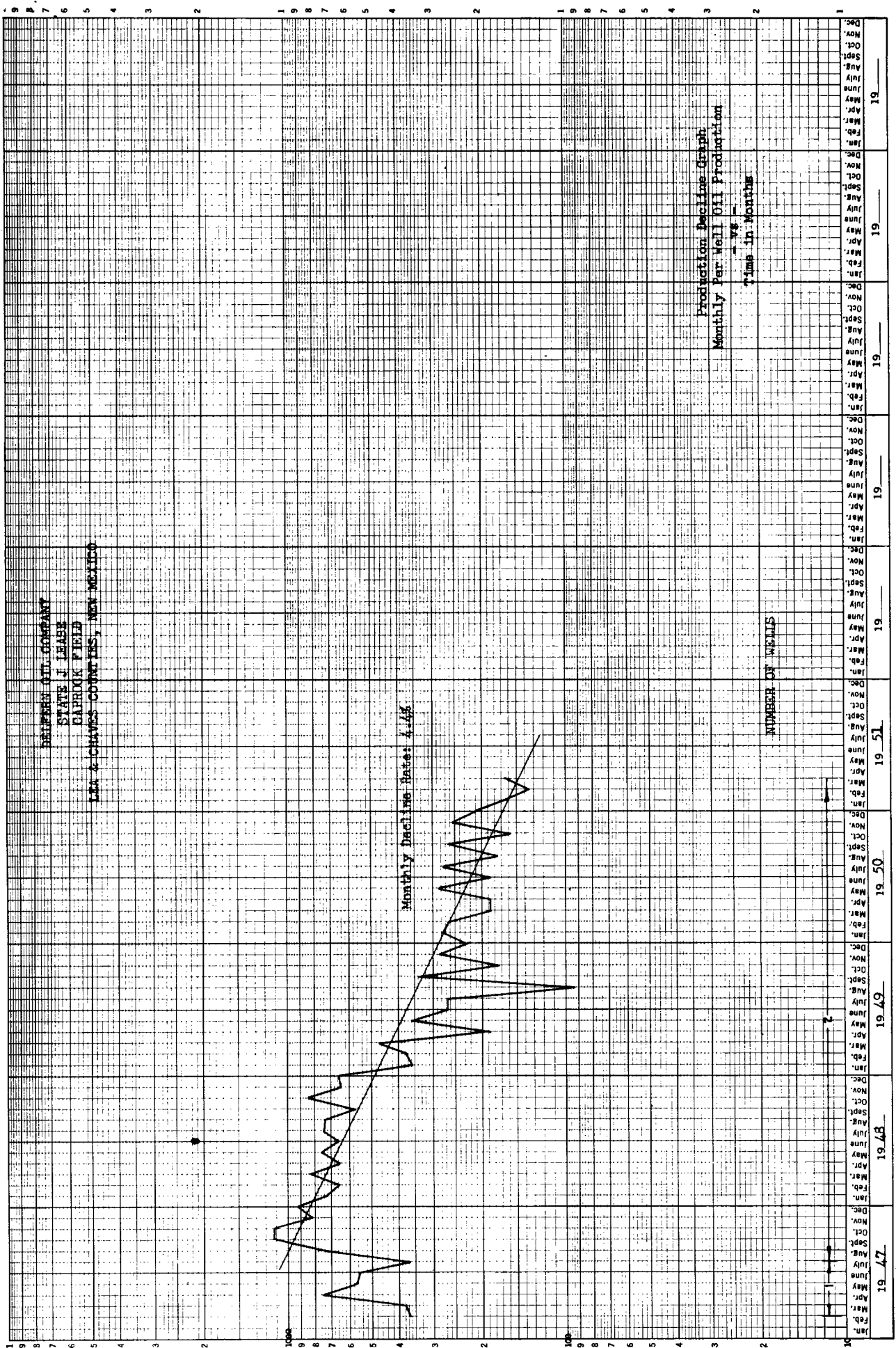
MONTHLY PER WELL OIL PRODUCTION IN BARRELS



MONTHLY PER WELL OIL PRODUCTION IN BARRELS







MONTHLY PER WELL OIL PRODUCTION IN BARRELS

Production Decline Graph
 Monthly Per Well Oil Production
 - bbl -
 Time in Months

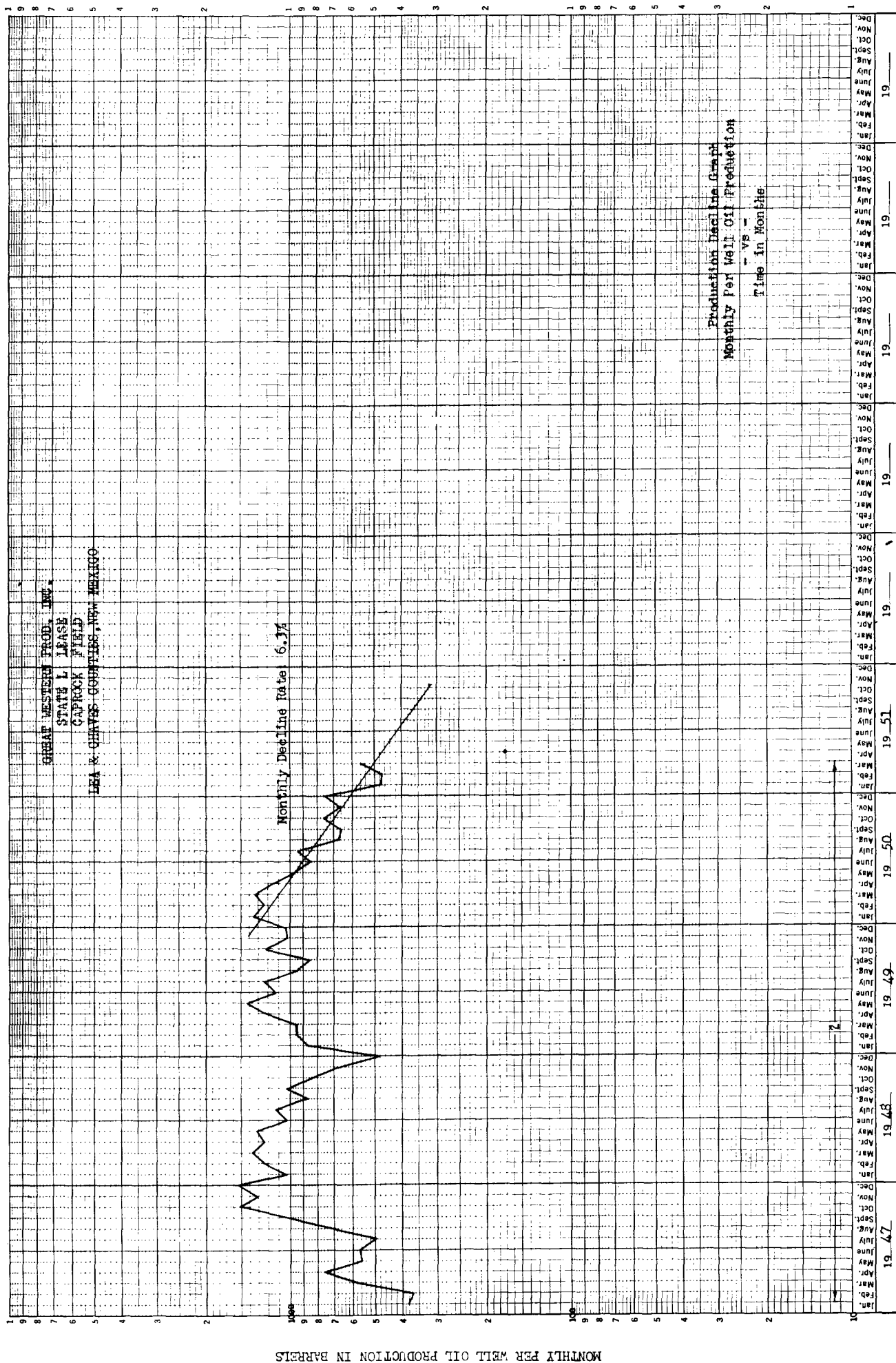
Company Information:
 GREAT WESTERN PROD. CO.
 MAXWELL STATE LEASE
 CAPROCK FIELD
 LEA & GRAVES COUNTIES, NEW MEXICO

Monthly Decline Rate: 11.45%

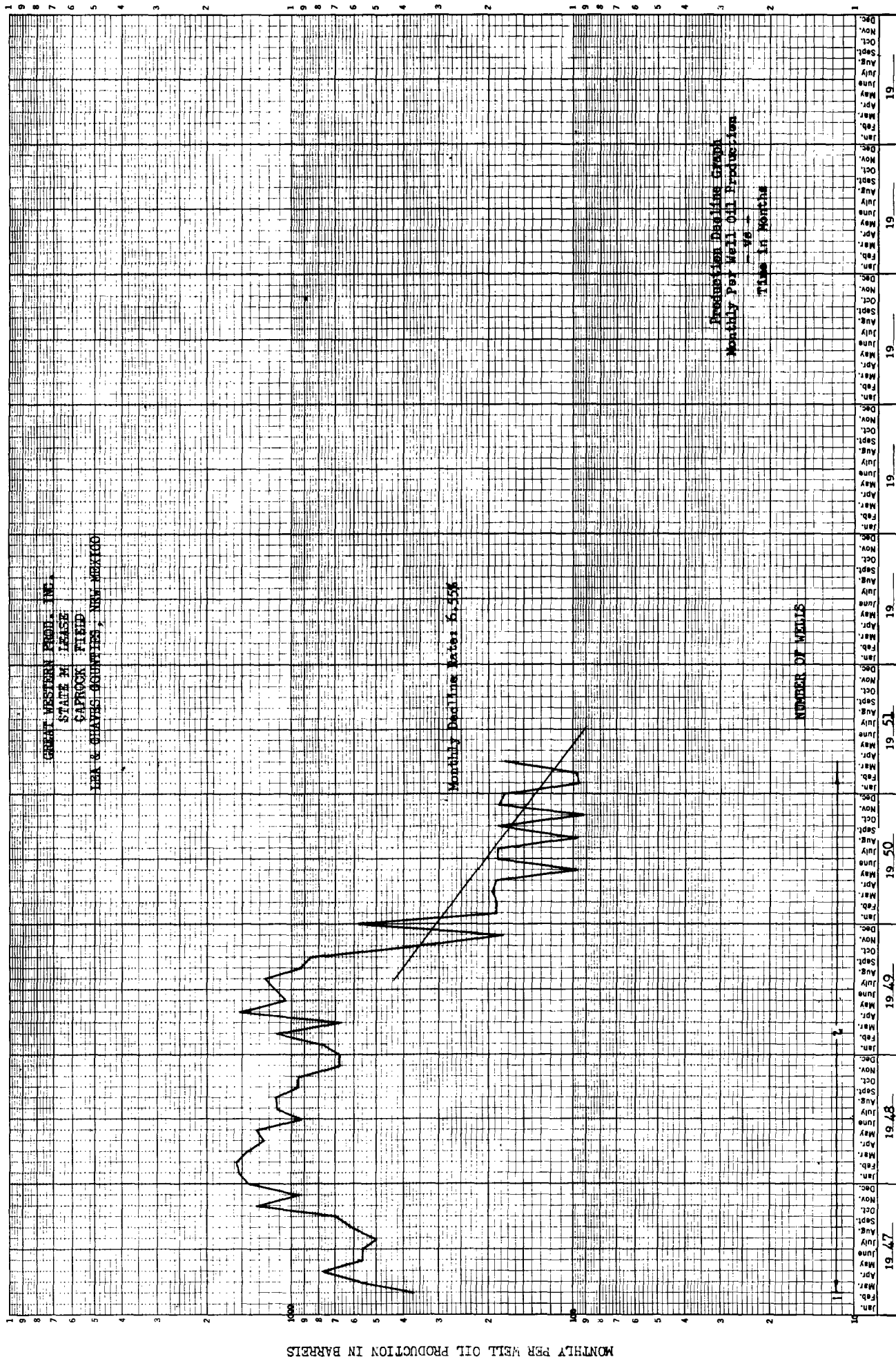
NUMBER OF WELLS

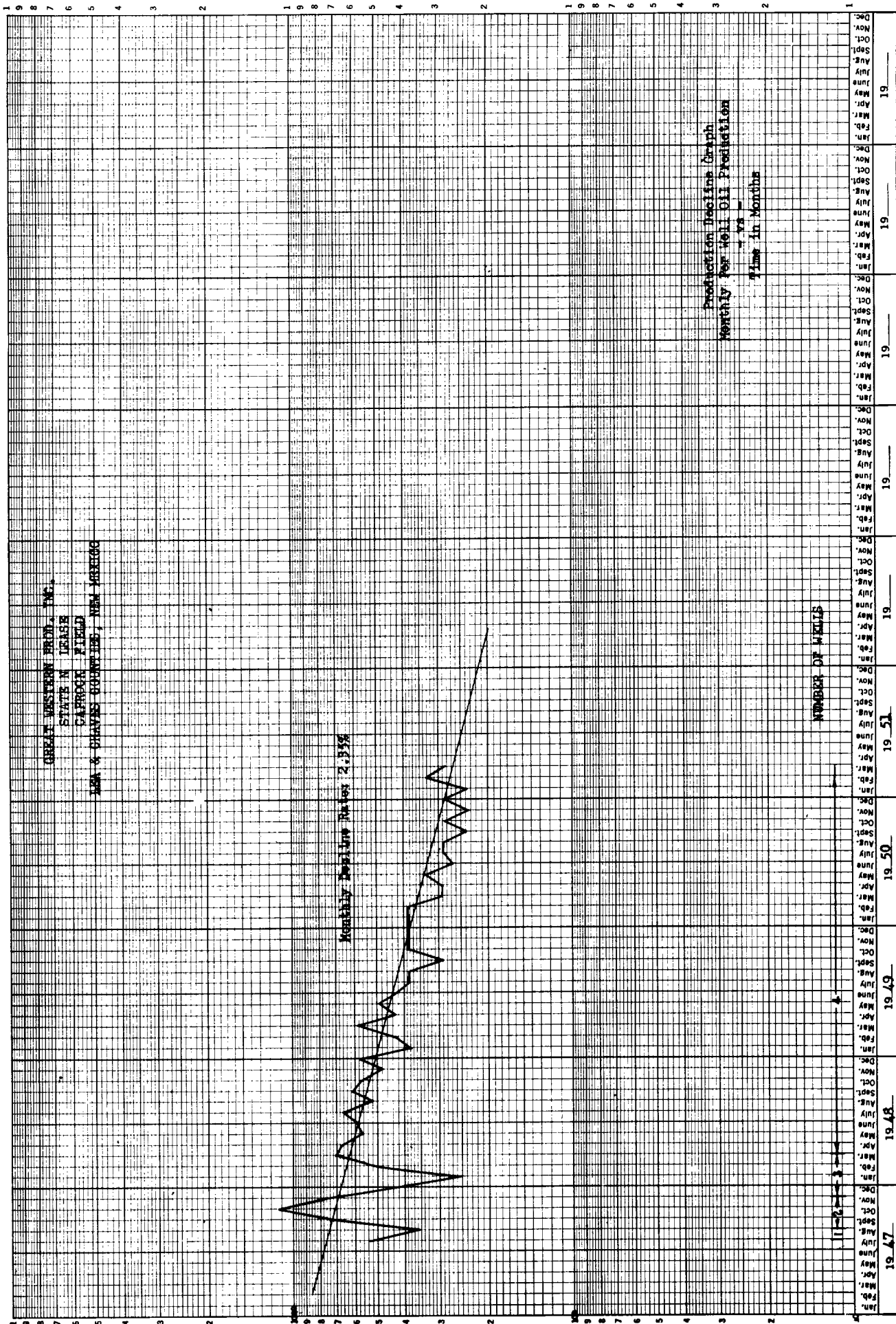
Month	1947	1948	1949	1950	1951	1952
Jan.	1	1	1	1	1	1
Feb.	1	1	1	1	1	1
Mar.	1	1	1	1	1	1
Apr.	1	1	1	1	1	1
May	1	1	1	1	1	1
June	1	1	1	1	1	1
July	1	1	1	1	1	1
Aug.	1	1	1	1	1	1
Sept.	1	1	1	1	1	1
Oct.	1	1	1	1	1	1
Nov.	1	1	1	1	1	1
Dec.	1	1	1	1	1	1

[illegible][illegible][illegible][illegible]



MONTHLY PER WELL OIL PRODUCTION IN BARRELS

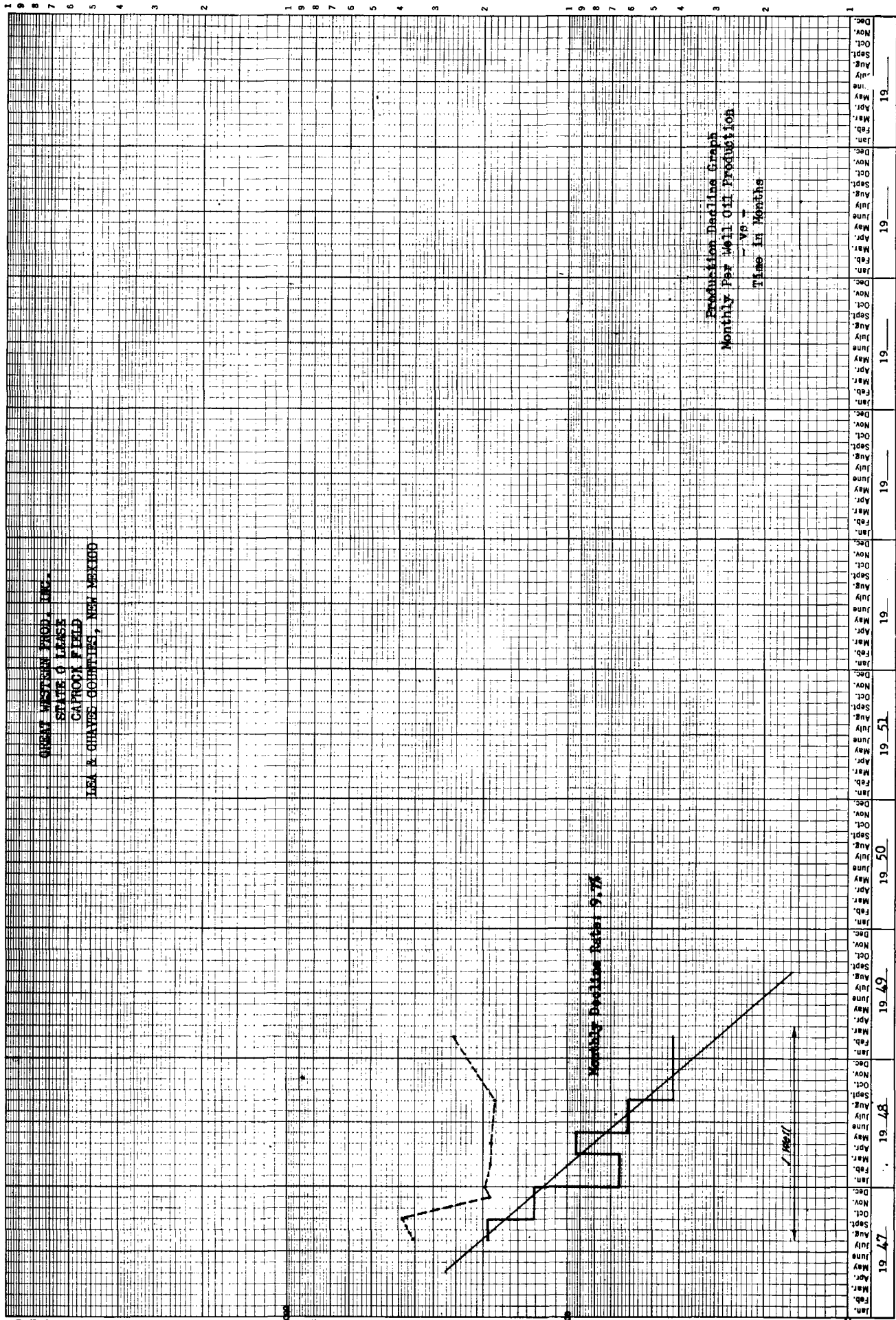


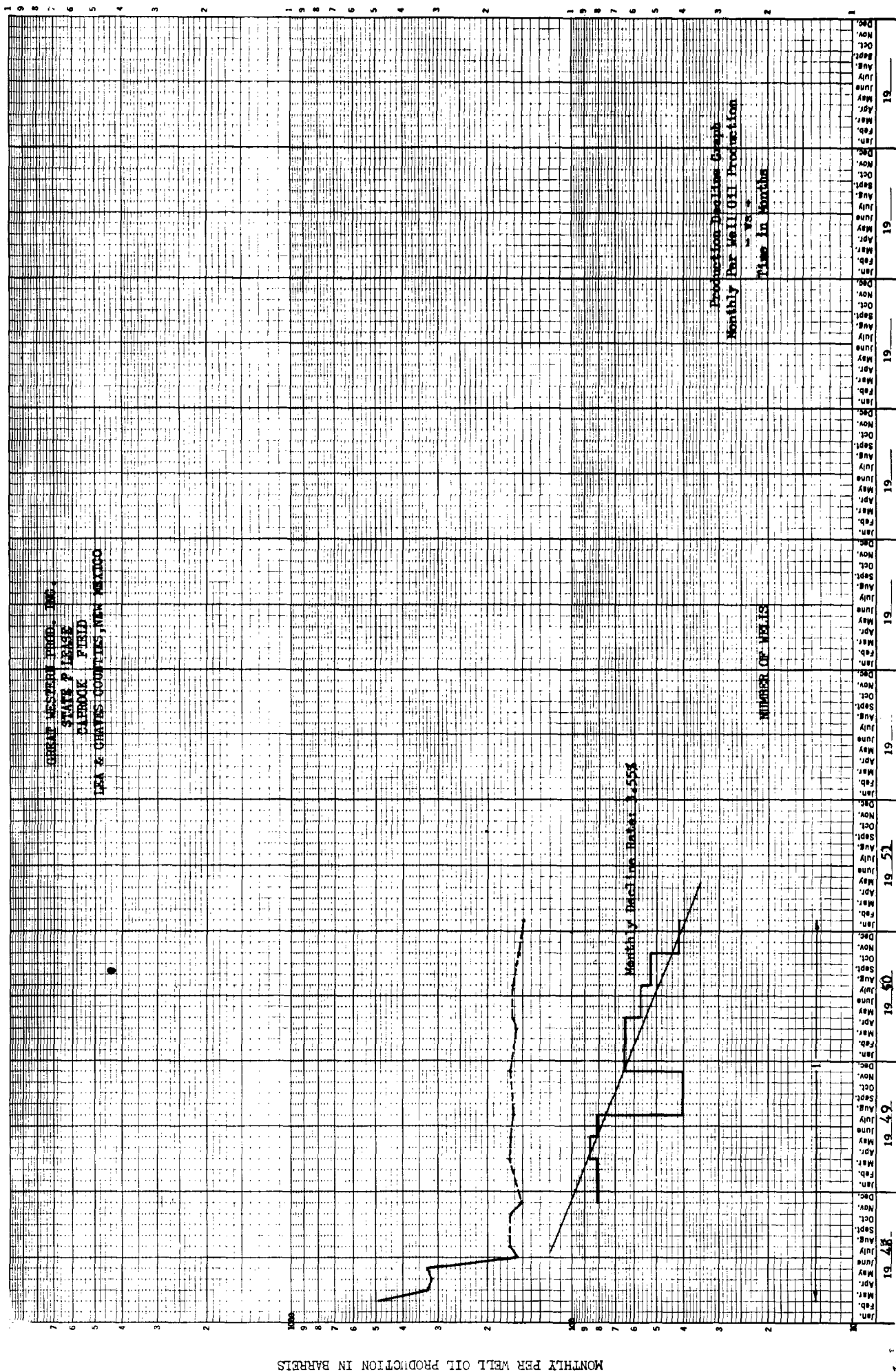


GREAT WESTERN PROD. INC.
STATE IN LEASE
CAPROCK FIELD
LEA & CHARLES COUNTIES, NEW MEXICO

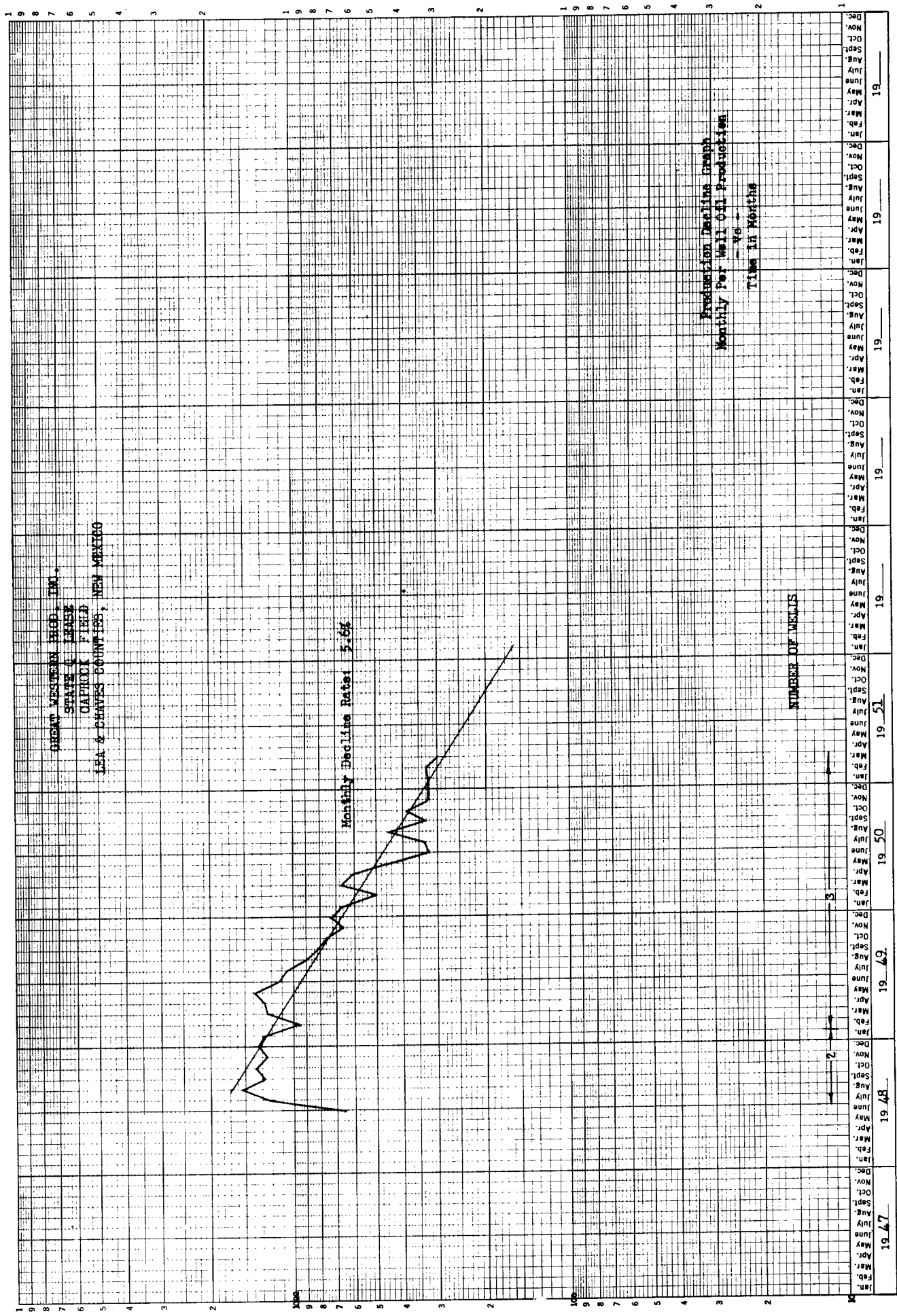
MONTHLY PER WELL OIL PRODUCTION IN BARRELS

MONTHLY PER WELL OIL PRODUCTION IN BARRELS

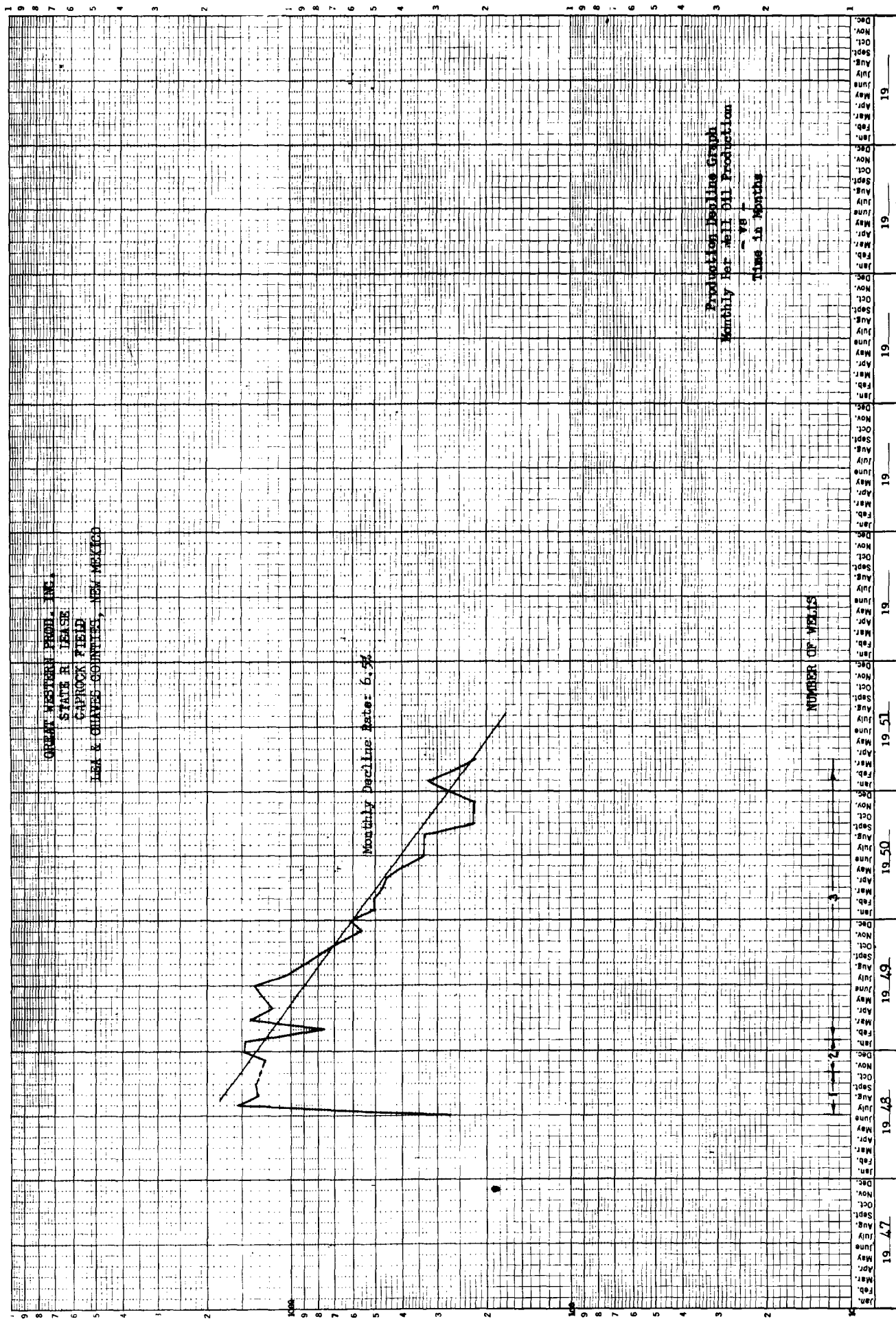


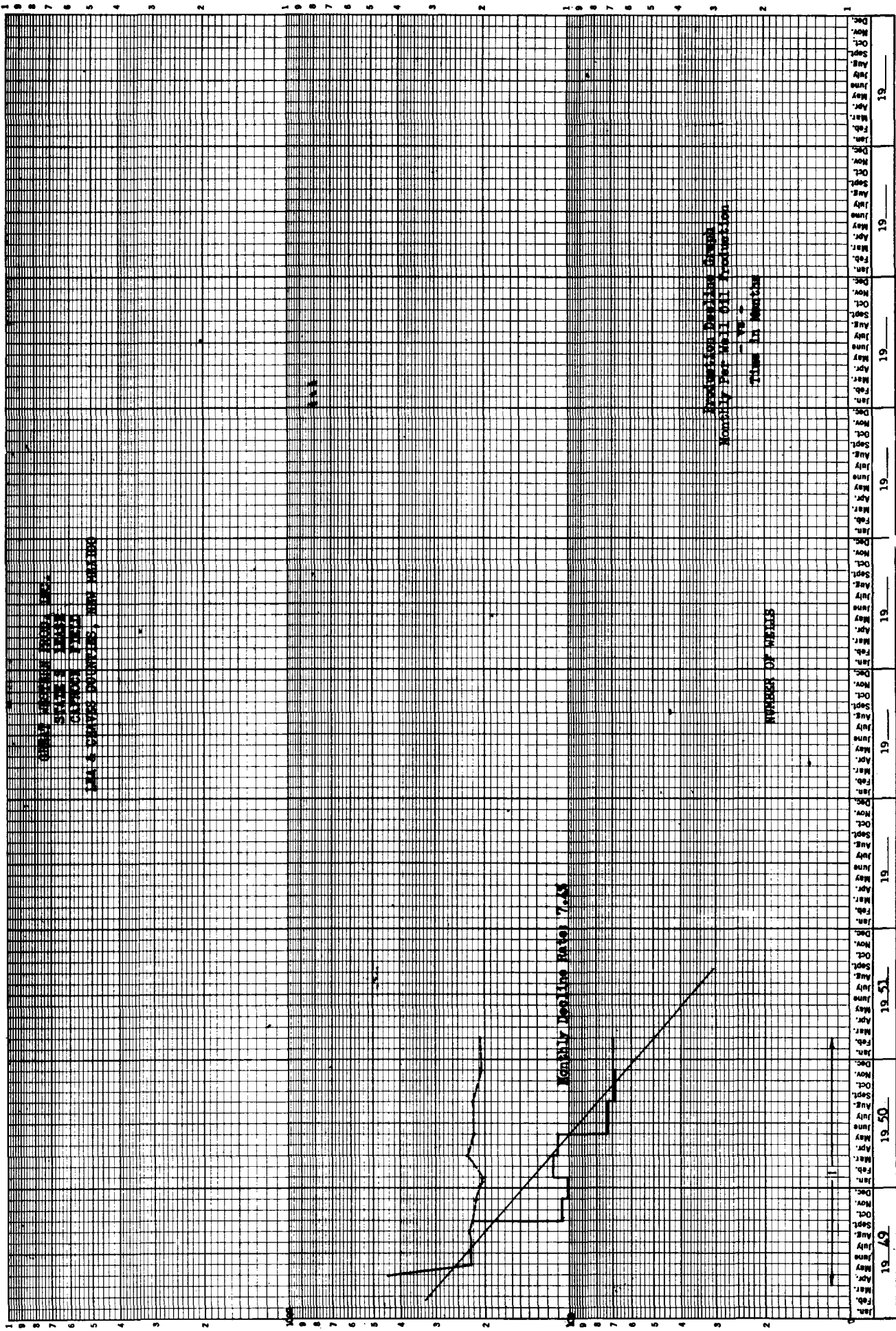


MONTHLY PER WELL OIL PRODUCTION IN BARRELS



GREAT WESTERN PROD. CO.
 STATE OIL LEASE
 OAPROCK FIELD
 LEA & CHAVES COUNTIES, NEW MEXICO





QUEEN OIL CORPORATION
CHADORE STATE OIL
CARPENTER FIELD
LINA & SHAYNE DOMESTICS, NEW MEXICO

Monthly Decline Rate: 2.5%

Production Decline Graph
Monthly Per Well Oil Production
- vs -
Time In Months

NUMBER OF WELLS

19 47 19 48 19 49 19 50 19 51

QUEEN OIL CORPORATION
CHADORE STATE OIL
CARPENTER FIELD
LINA & SHAYNE DOMESTICS, NEW MEXICO

Monthly Decline Rate: 2.5%

Production Decline Graph
Monthly Per Well Oil Production
- vs -
Time In Months

NUMBER OF WELLS

Year	Month	Monthly Decline Rate (%)
1947	Jan	2.5
1947	Feb	2.5
1947	Mar	2.5
1947	Apr	2.5
1947	May	2.5
1947	Jun	2.5
1947	Jul	2.5
1947	Aug	2.5
1947	Sep	2.5
1947	Oct	2.5
1947	Nov	2.5
1947	Dec	2.5
1948	Jan	2.5
1948	Feb	2.5
1948	Mar	2.5
1948	Apr	2.5
1948	May	2.5
1948	Jun	2.5
1948	Jul	2.5
1948	Aug	2.5
1948	Sep	2.5
1948	Oct	2.5
1948	Nov	2.5
1948	Dec	2.5
1949	Jan	2.5
1949	Feb	2.5
1949	Mar	2.5
1949	Apr	2.5
1949	May	2.5
1949	Jun	2.5
1949	Jul	2.5
1949	Aug	2.5
1949	Sep	2.5
1949	Oct	2.5
1949	Nov	2.5
1949	Dec	2.5
1950	Jan	2.5
1950	Feb	2.5
1950	Mar	2.5
1950	Apr	2.5
1950	May	2.5
1950	Jun	2.5
1950	Jul	2.5
1950	Aug	2.5
1950	Sep	2.5
1950	Oct	2.5
1950	Nov	2.5
1950	Dec	2.5
1951	Jan	2.5
1951	Feb	2.5
1951	Mar	2.5
1951	Apr	2.5
1951	May	2.5
1951	Jun	2.5
1951	Jul	2.5
1951	Aug	2.5
1951	Sep	2.5
1951	Oct	2.5
1951	Nov	2.5
1951	Dec	2.5

QUEEN OIL CORPORATION
CHADRON STATE OIL
CARTON FIELD
LMA & SHAYNE DOMAINS, NEW MEXICO

Monthly Decline Rate: 2.5%

Production Decline Graph
Monthly Per Well Oil Production
- vs -
Time In Months

NUMBER OF WELLS

Year	Month	Monthly Decline Rate (%)
1947	Jan	2.5
1947	Feb	2.5
1947	Mar	2.5
1947	Apr	2.5
1947	May	2.5
1947	Jun	2.5
1947	Jul	2.5
1947	Aug	2.5
1947	Sep	2.5
1947	Oct	2.5
1947	Nov	2.5
1947	Dec	2.5
1948	Jan	2.5
1948	Feb	2.5
1948	Mar	2.5
1948	Apr	2.5
1948	May	2.5
1948	Jun	2.5
1948	Jul	2.5
1948	Aug	2.5
1948	Sep	2.5
1948	Oct	2.5
1948	Nov	2.5
1948	Dec	2.5
1949	Jan	2.5
1949	Feb	2.5
1949	Mar	2.5
1949	Apr	2.5
1949	May	2.5
1949	Jun	2.5
1949	Jul	2.5
1949	Aug	2.5
1949	Sep	2.5
1949	Oct	2.5
1949	Nov	2.5
1949	Dec	2.5
1950	Jan	2.5
1950	Feb	2.5
1950	Mar	2.5
1950	Apr	2.5
1950	May	2.5
1950	Jun	2.5
1950	Jul	2.5
1950	Aug	2.5
1950	Sep	2.5
1950	Oct	2.5
1950	Nov	2.5
1950	Dec	2.5
1951	Jan	2.5
1951	Feb	2.5
1951	Mar	2.5
1951	Apr	2.5
1951	May	2.5
1951	Jun	2.5
1951	Jul	2.5
1951	Aug	2.5
1951	Sep	2.5
1951	Oct	2.5
1951	Nov	2.5
1951	Dec	2.5

QUEEN OIL CORPORATION
CHADRON STATE OIL
CARTOON FIELD
LINA & SHAYNE DOMESTICS, NEW MEXICO

Monthly Decline Rate: 2.5%

Production Decline Graph
Monthly Per Well Oil Production
- vs -
Time In Months

NUMBER OF WELLS

19 47 19 48 19 49 19 50 19 51

QUEEN OIL CORPORATION
CHADRON STATE OIL
CARTON FIELD
LINA & SHAYNE DOMESTICS, NEW MEXICO

Monthly Decline Rate: 2.5%

Production Decline Graph
Monthly Per Well Oil Production
- vs -
Time In Months

NUMBER OF WELLS

Year	Month	Monthly Decline Rate (%)
1947	Jan	2.5
1947	Feb	2.5
1947	Mar	2.5
1947	Apr	2.5
1947	May	2.5
1947	Jun	2.5
1947	Jul	2.5
1947	Aug	2.5
1947	Sep	2.5
1947	Oct	2.5
1947	Nov	2.5
1947	Dec	2.5
1948	Jan	2.5
1948	Feb	2.5
1948	Mar	2.5
1948	Apr	2.5
1948	May	2.5
1948	Jun	2.5
1948	Jul	2.5
1948	Aug	2.5
1948	Sep	2.5
1948	Oct	2.5
1948	Nov	2.5
1948	Dec	2.5
1949	Jan	2.5
1949	Feb	2.5
1949	Mar	2.5
1949	Apr	2.5
1949	May	2.5
1949	Jun	2.5
1949	Jul	2.5
1949	Aug	2.5
1949	Sep	2.5
1949	Oct	2.5
1949	Nov	2.5
1949	Dec	2.5
1950	Jan	2.5
1950	Feb	2.5
1950	Mar	2.5
1950	Apr	2.5
1950	May	2.5
1950	Jun	2.5
1950	Jul	2.5
1950	Aug	2.5
1950	Sep	2.5
1950	Oct	2.5
1950	Nov	2.5
1950	Dec	2.5
1951	Jan	2.5
1951	Feb	2.5
1951	Mar	2.5
1951	Apr	2.5
1951	May	2.5
1951	Jun	2.5
1951	Jul	2.5
1951	Aug	2.5
1951	Sep	2.5
1951	Oct	2.5
1951	Nov	2.5
1951	Dec	2.5

QUEEN OIL CORPORATION
CHADRON STATE OIL
CARTOON FIELD
LINA & SHAYNE DOMESTICS, NEW MEXICO

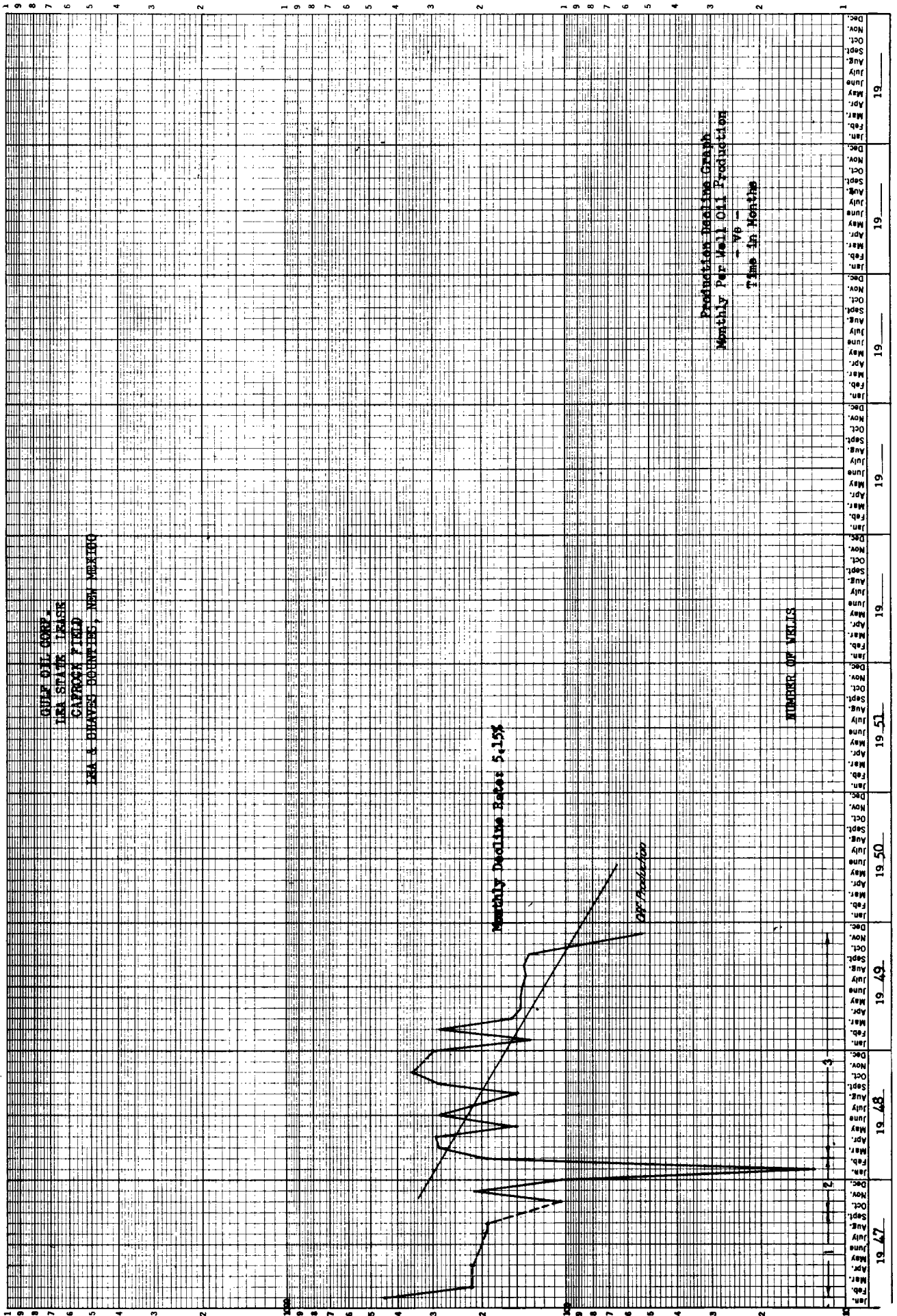
Monthly Decline Rate: 2.5%

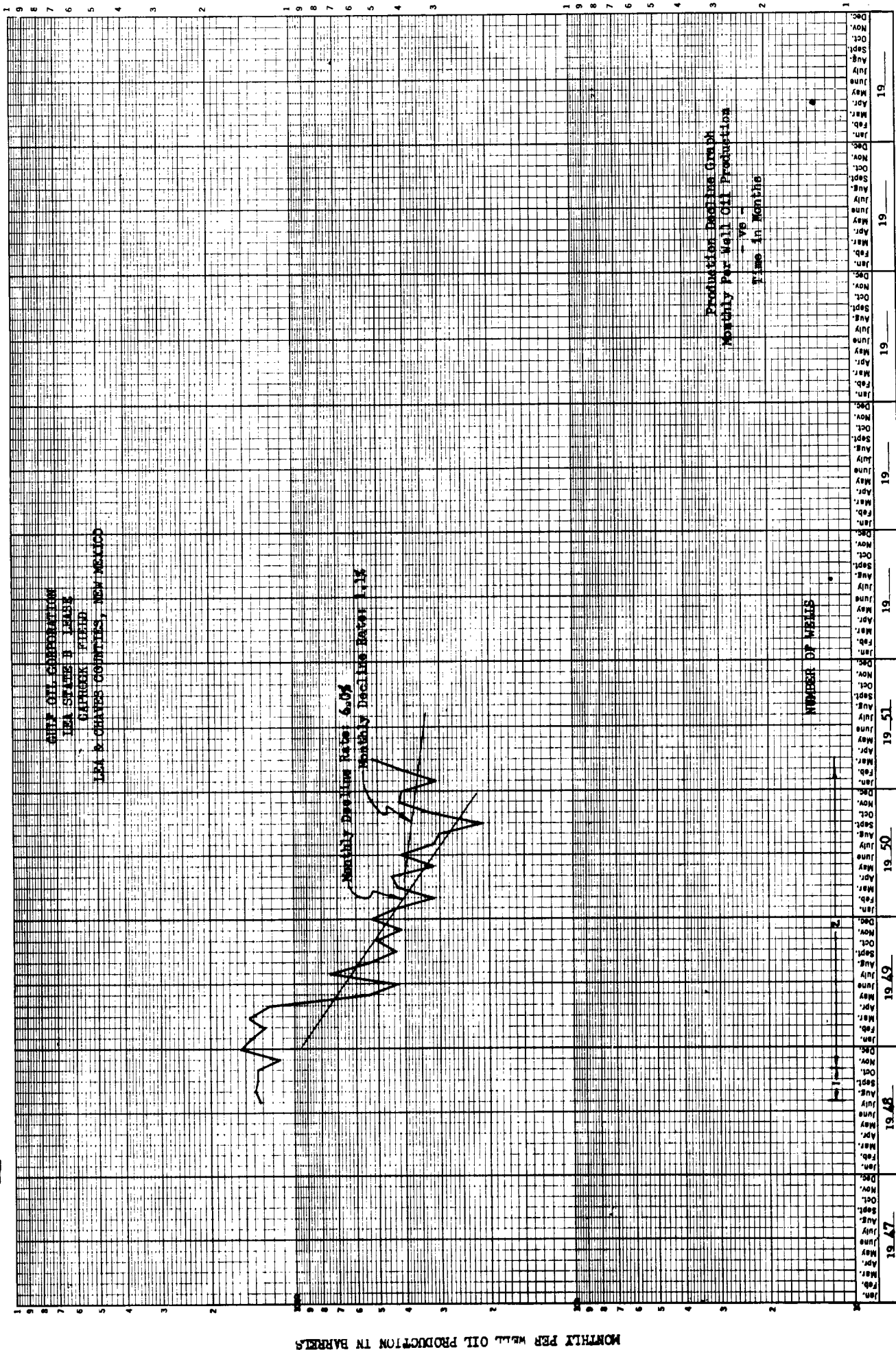
Production Decline Graph
Monthly Per Well Oil Production
- vs -
Time In Months

NUMBER OF WELLS

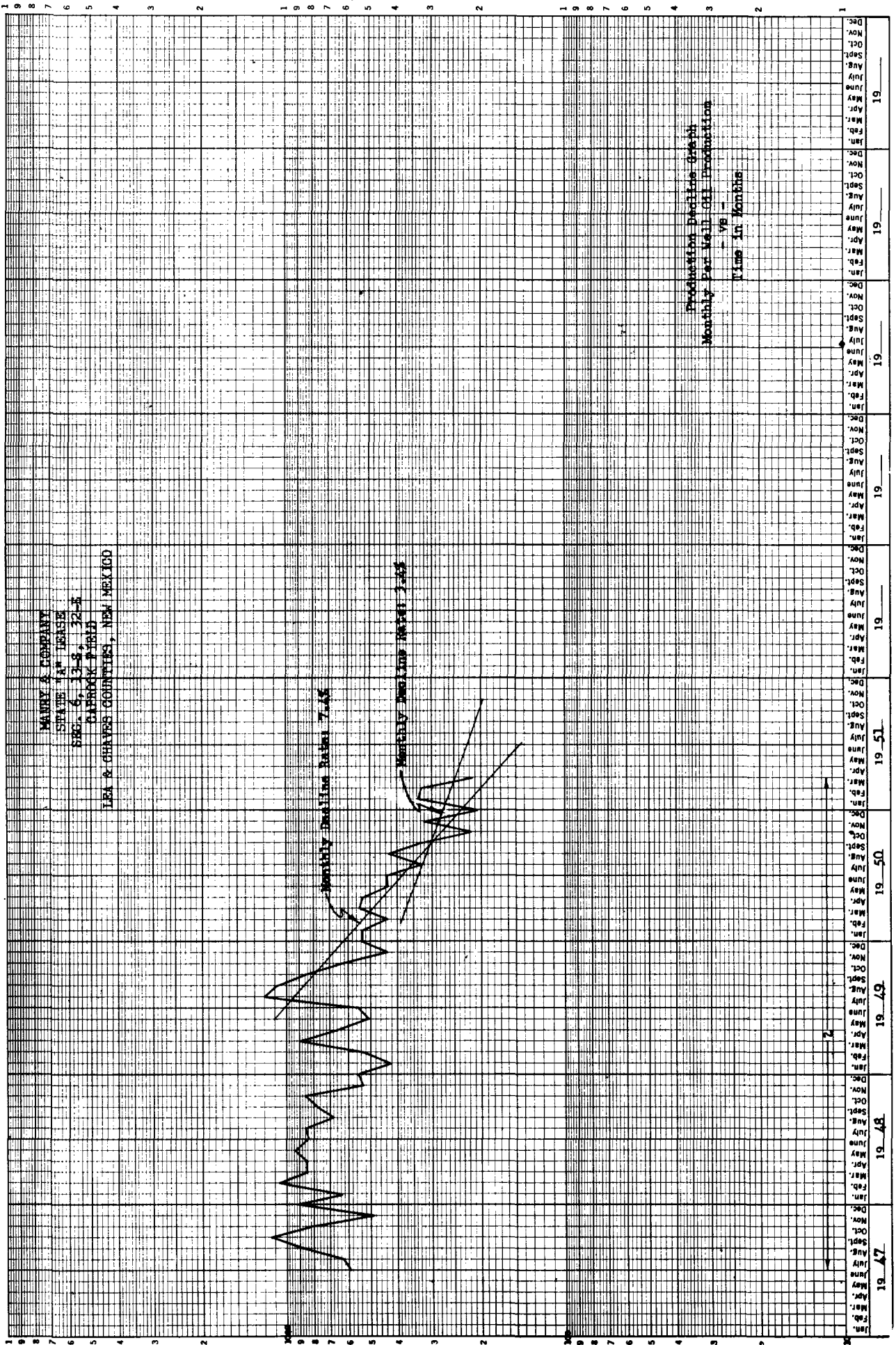
Year	Month	Monthly Decline Rate (%)
1947	Jan	2.5
1947	Apr	2.5
1947	Jul	2.5
1947	Oct	2.5
1947	Dec	2.5
1948	Jan	2.5
1948	Apr	2.5
1948	Jul	2.5
1948	Oct	2.5
1948	Dec	2.5
1949	Jan	2.5
1949	Apr	2.5
1949	Jul	2.5
1949	Oct	2.5
1949	Dec	2.5
1950	Jan	2.5
1950	Apr	2.5
1950	Jul	2.5
1950	Oct	2.5
1950	Dec	2.5
1951	Jan	2.5
1951	Apr	2.5
1951	Jul	2.5
1951	Oct	2.5
1951	Dec	2.5

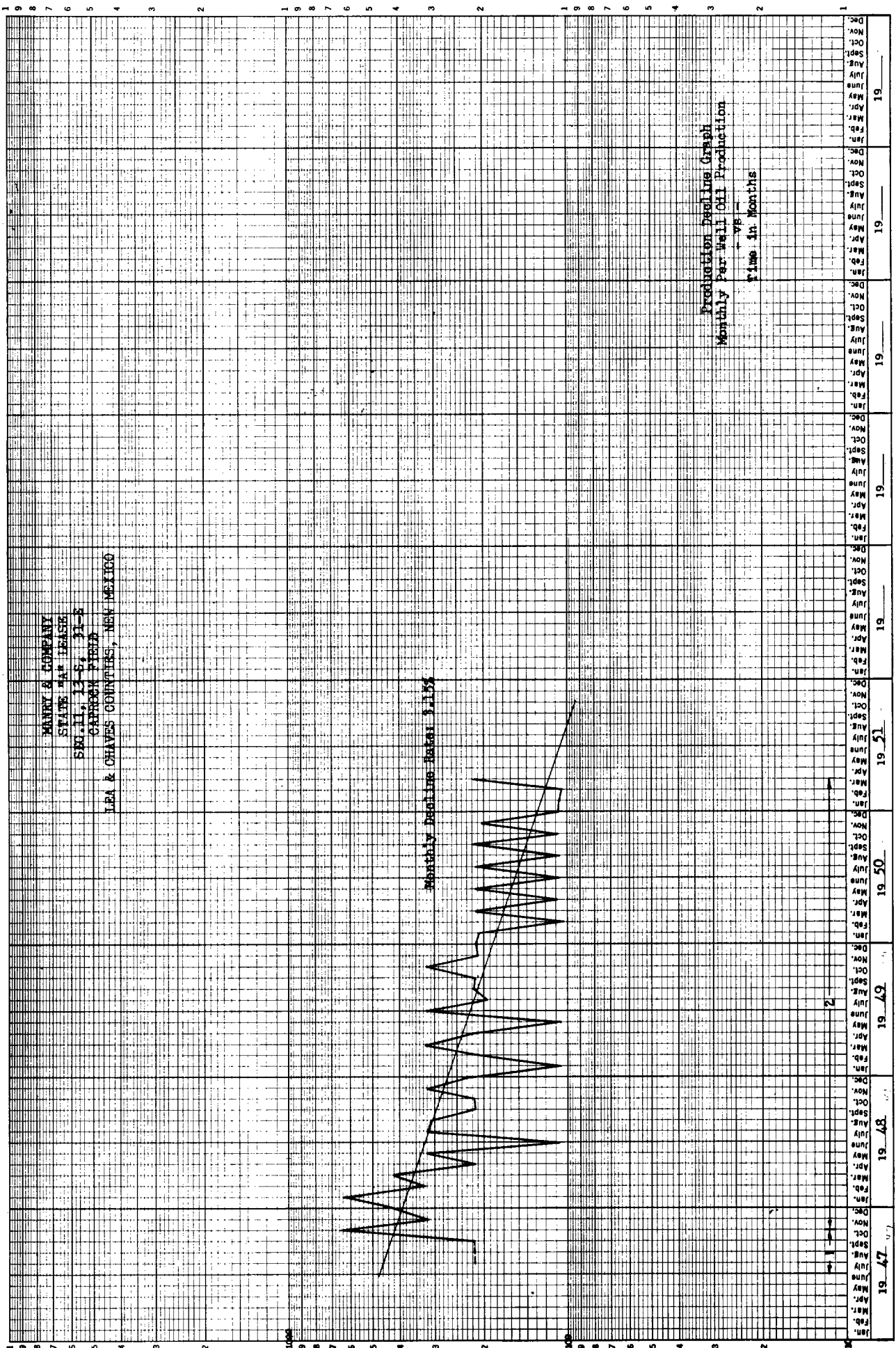
MONTHLY PER WELL OIL PRODUCTION IN BARRELS

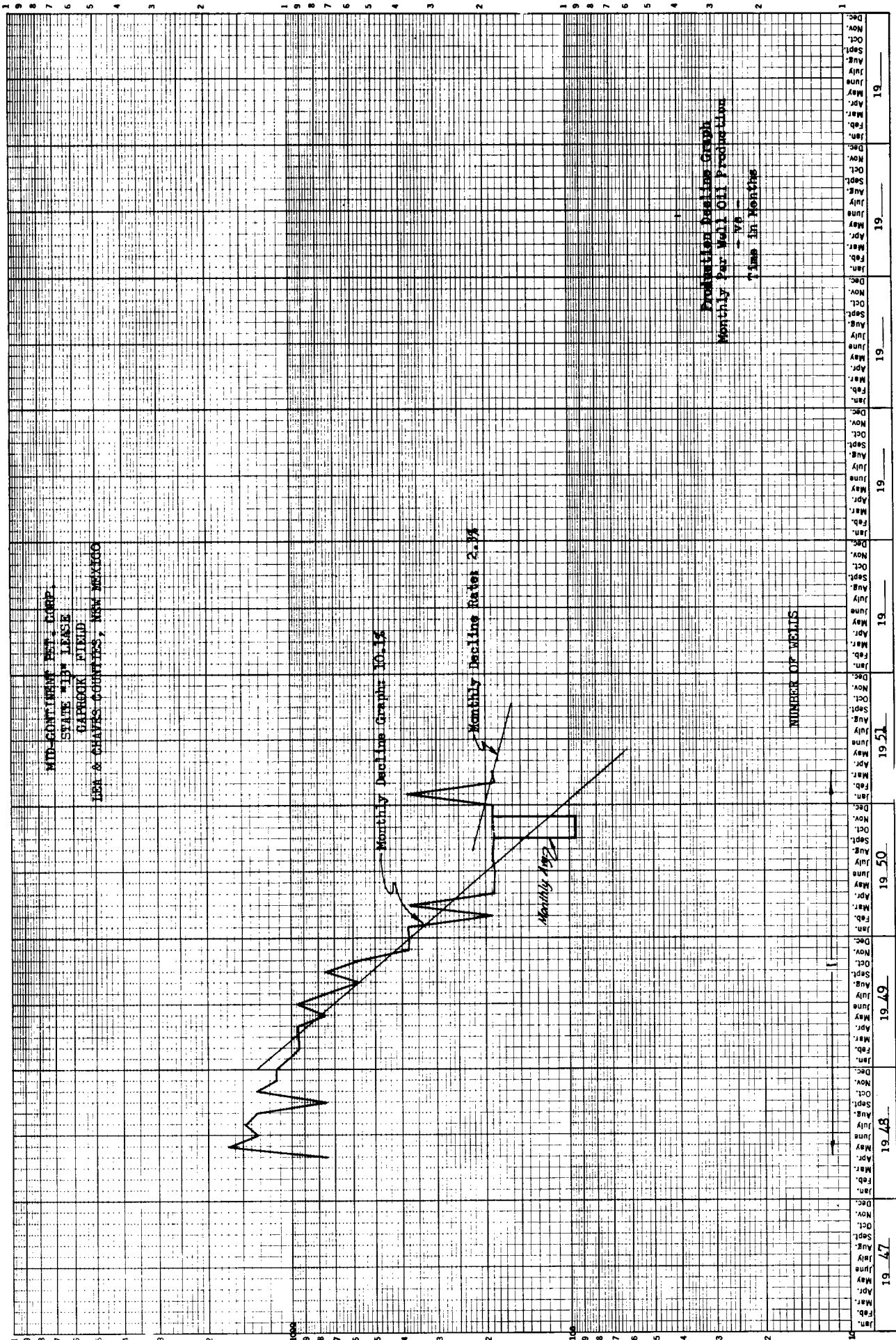


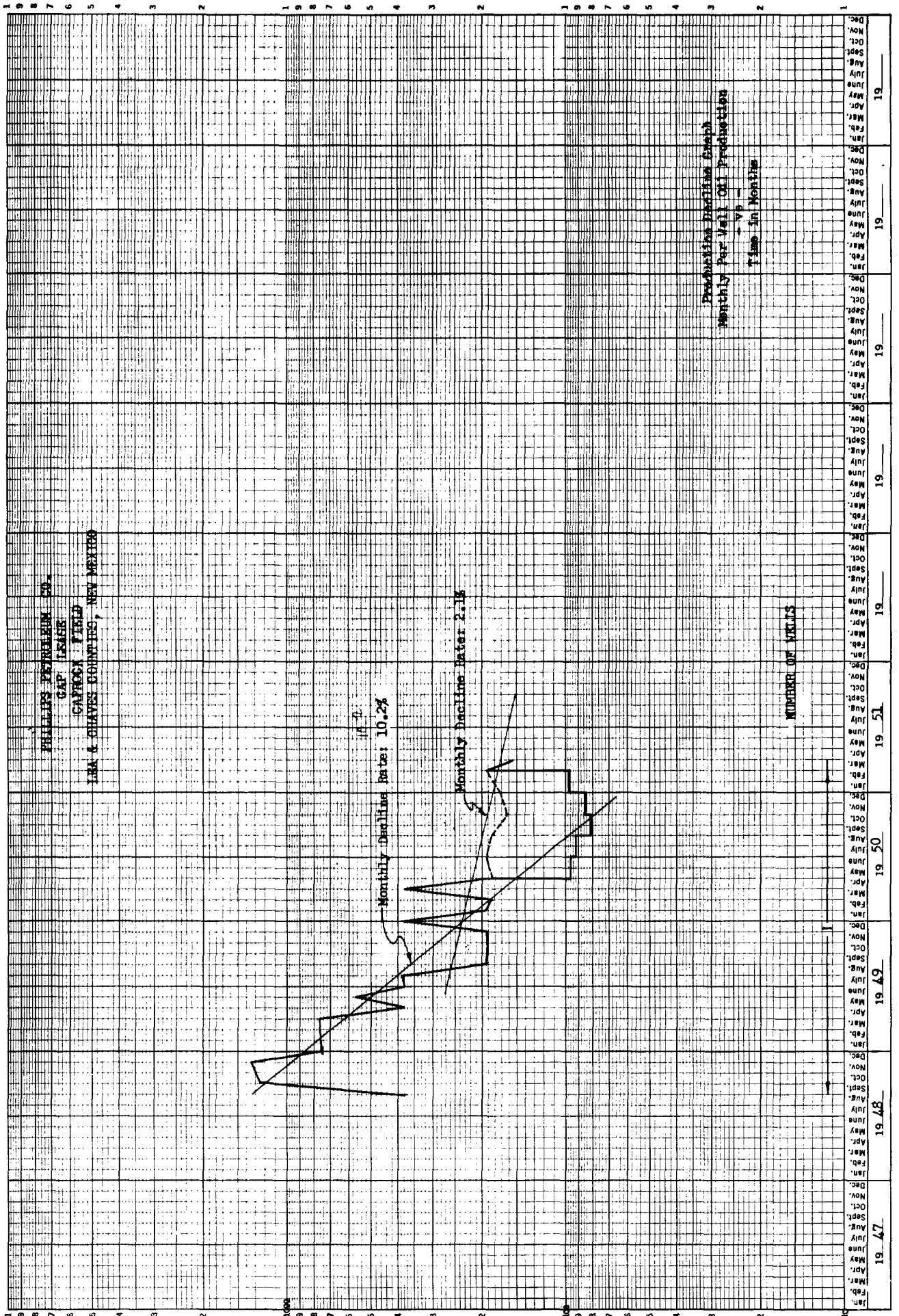


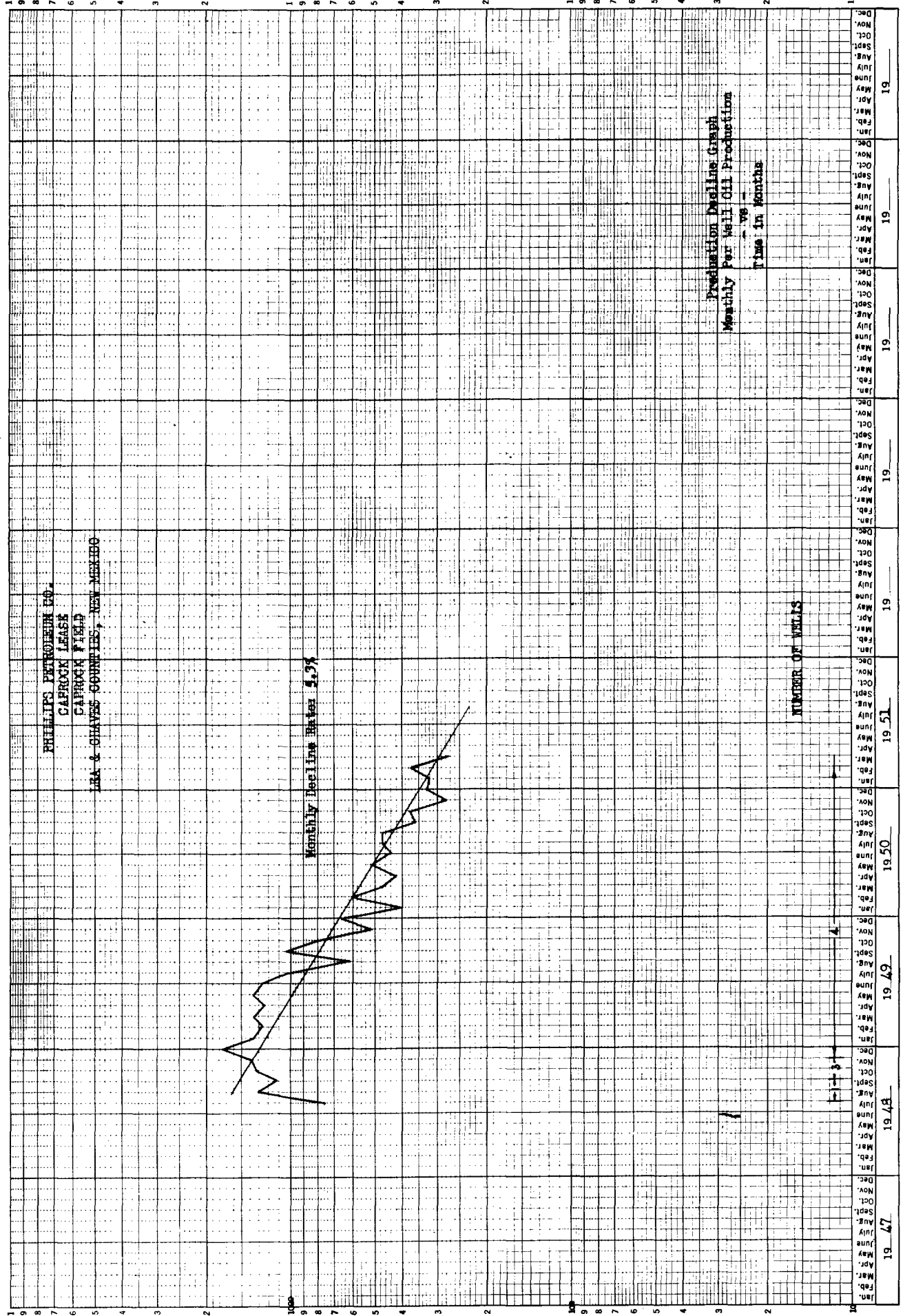
MONTHLY PER WELL OIL PRODUCTION IN BARRELS



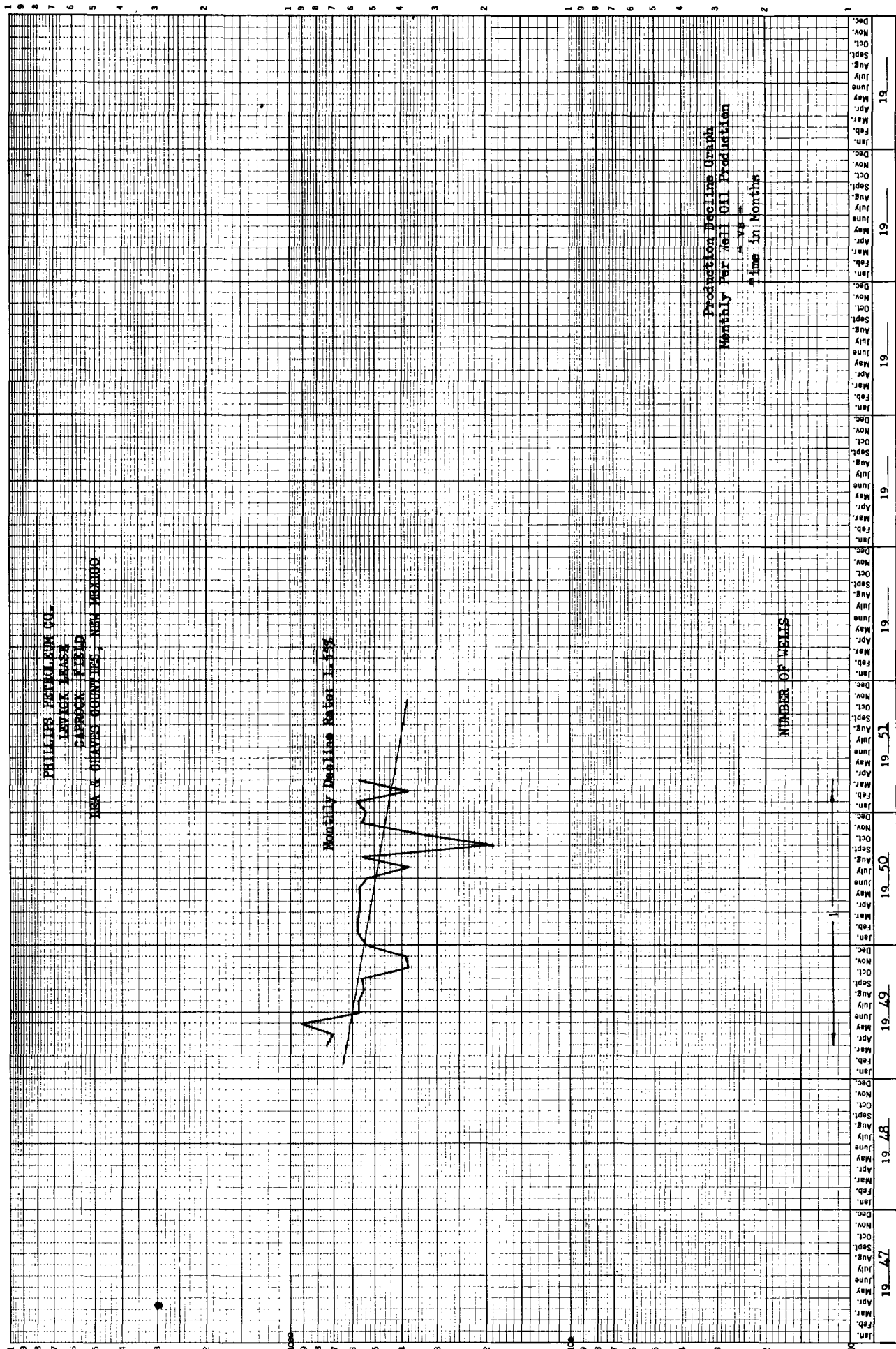




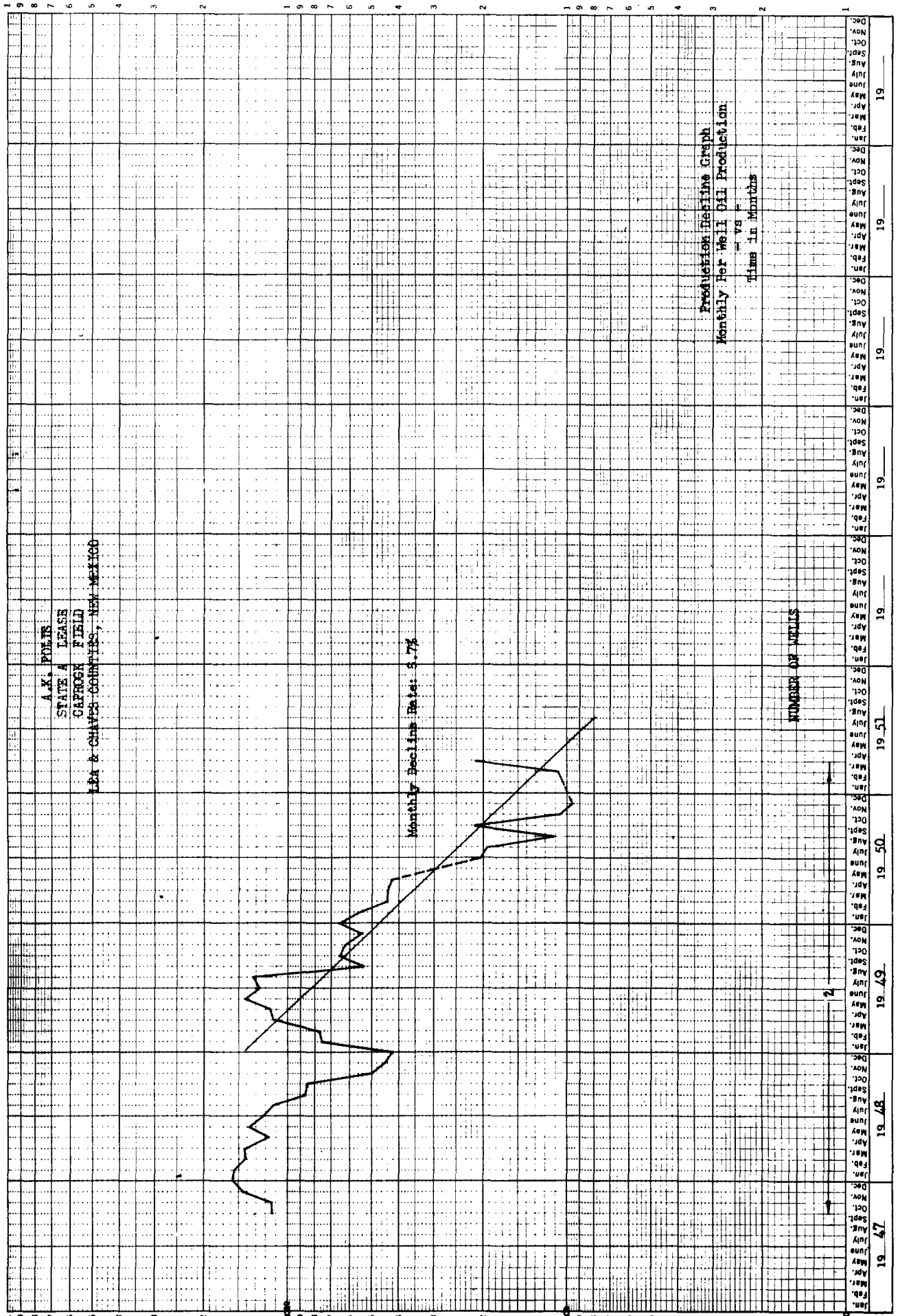


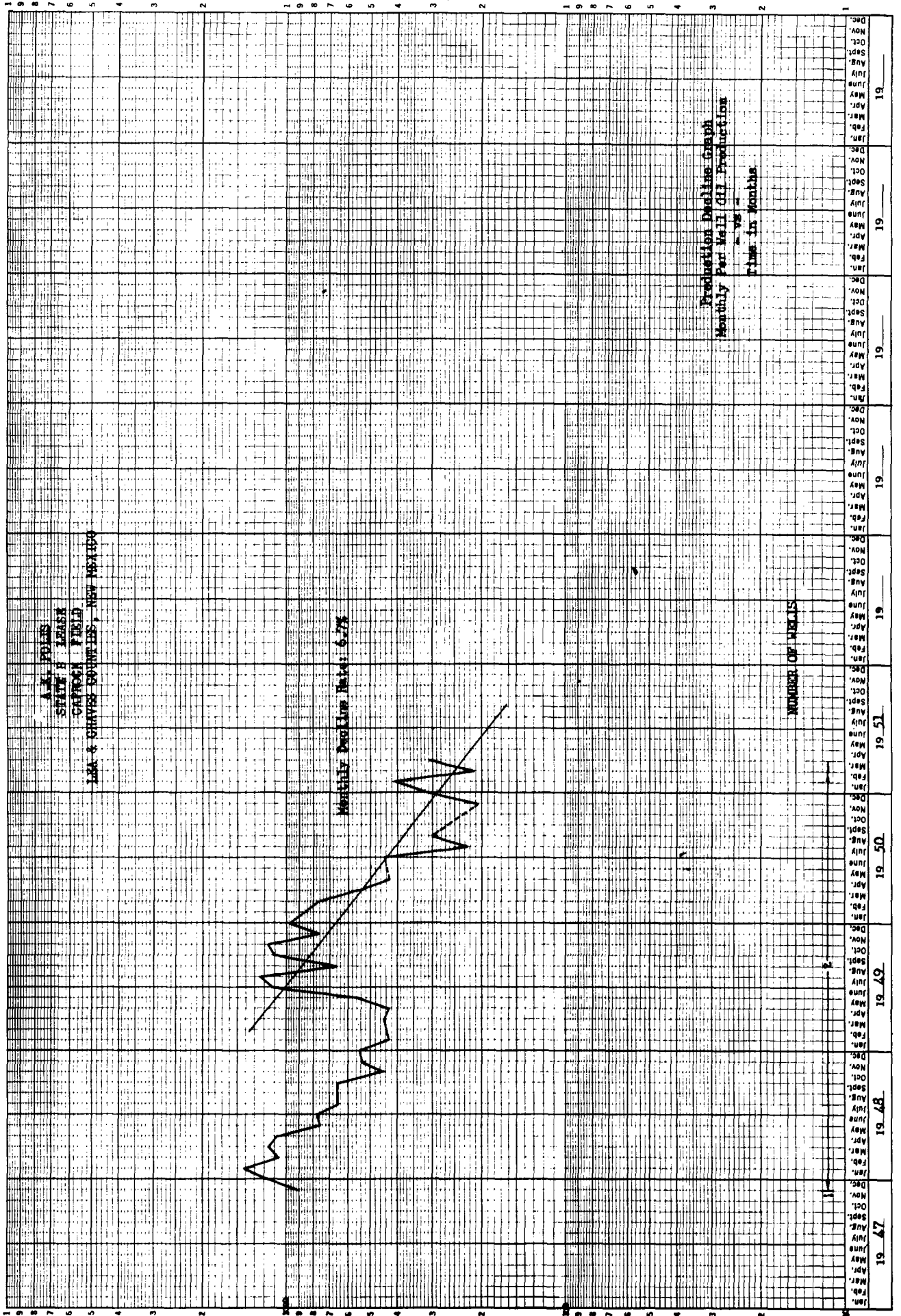


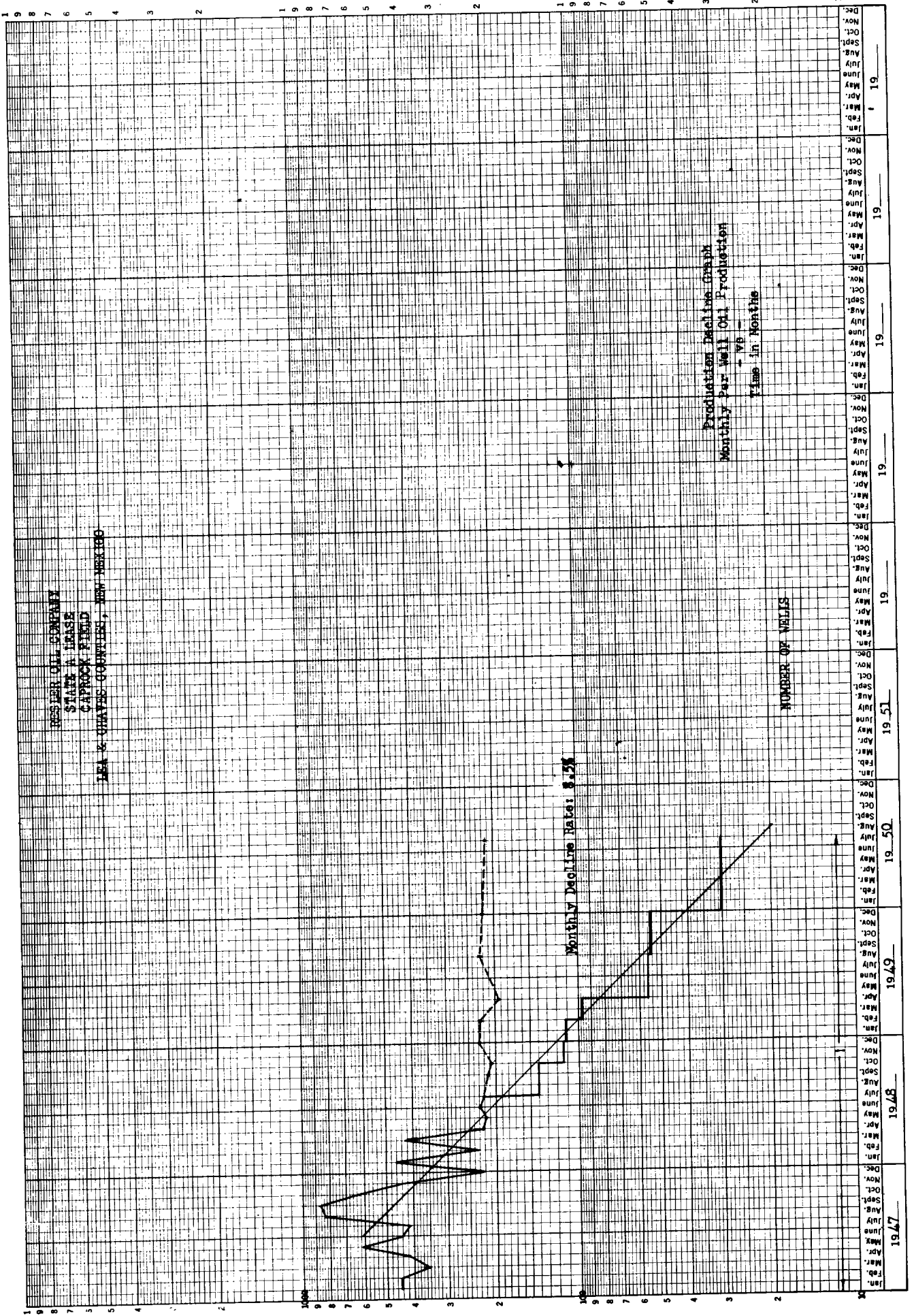
MONTHLY PER WELL OIL PRODUCTION IN BARRELS

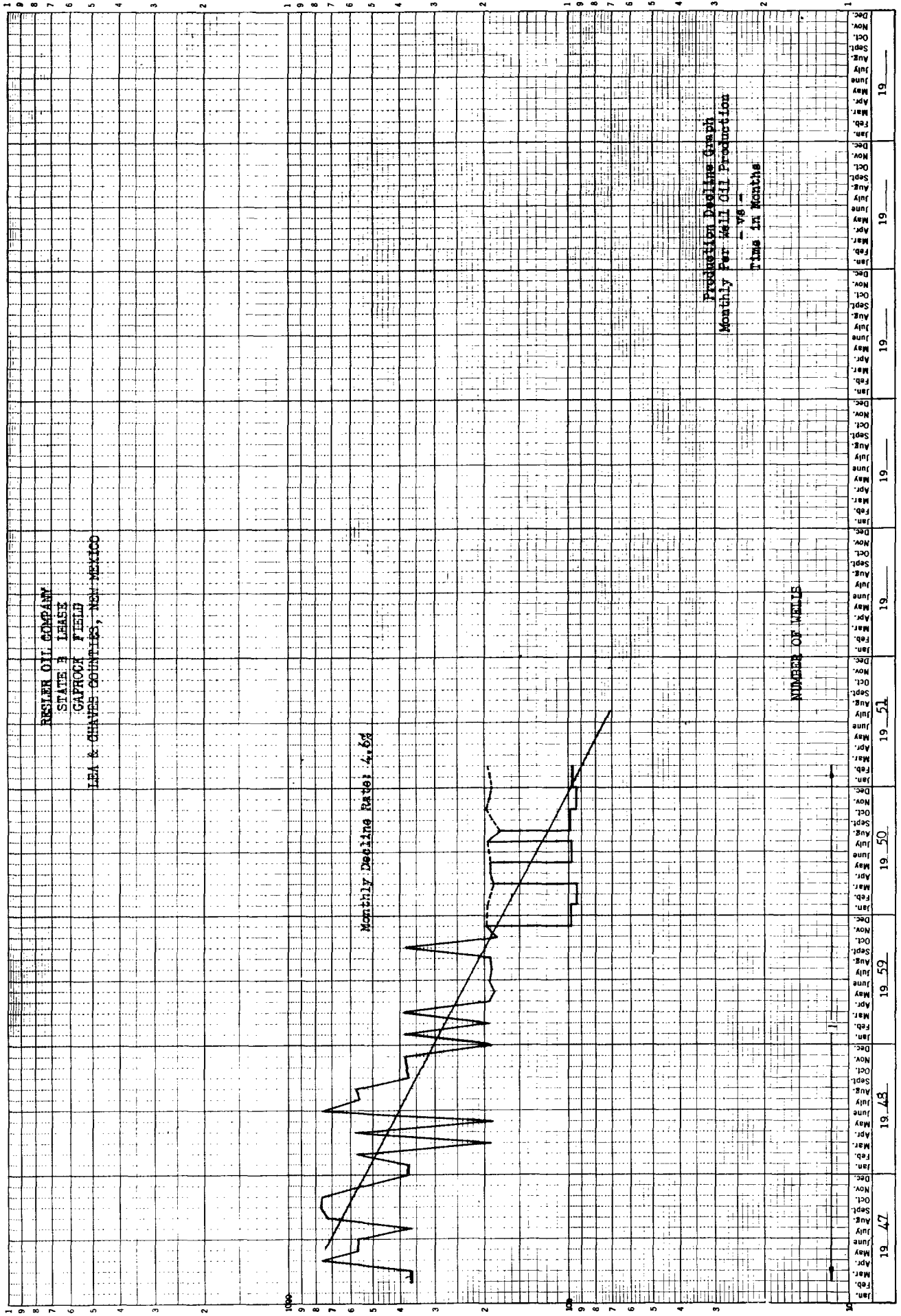


MONTHLY PER WELL OIL PRODUCTION IN BARRELS

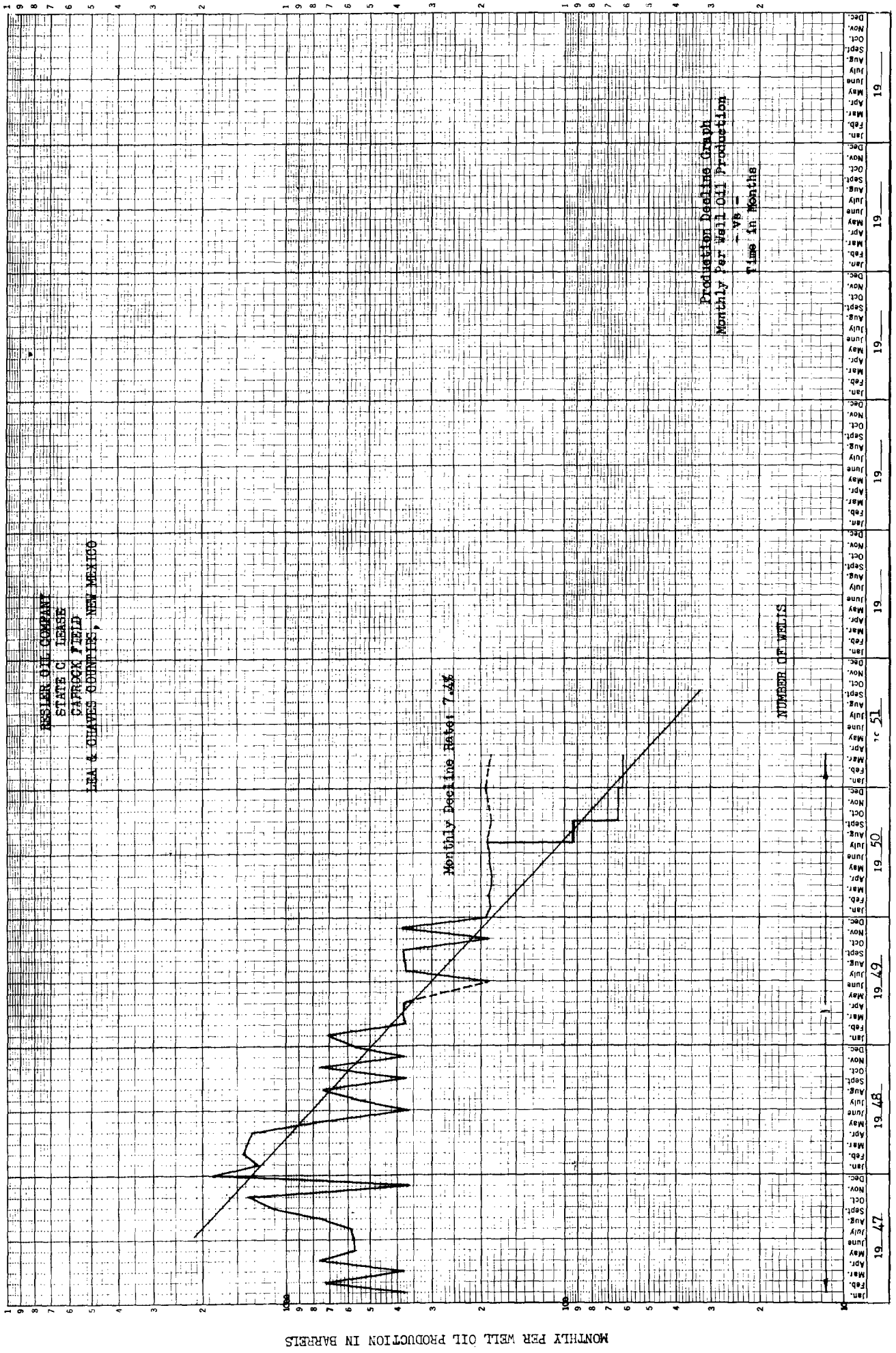






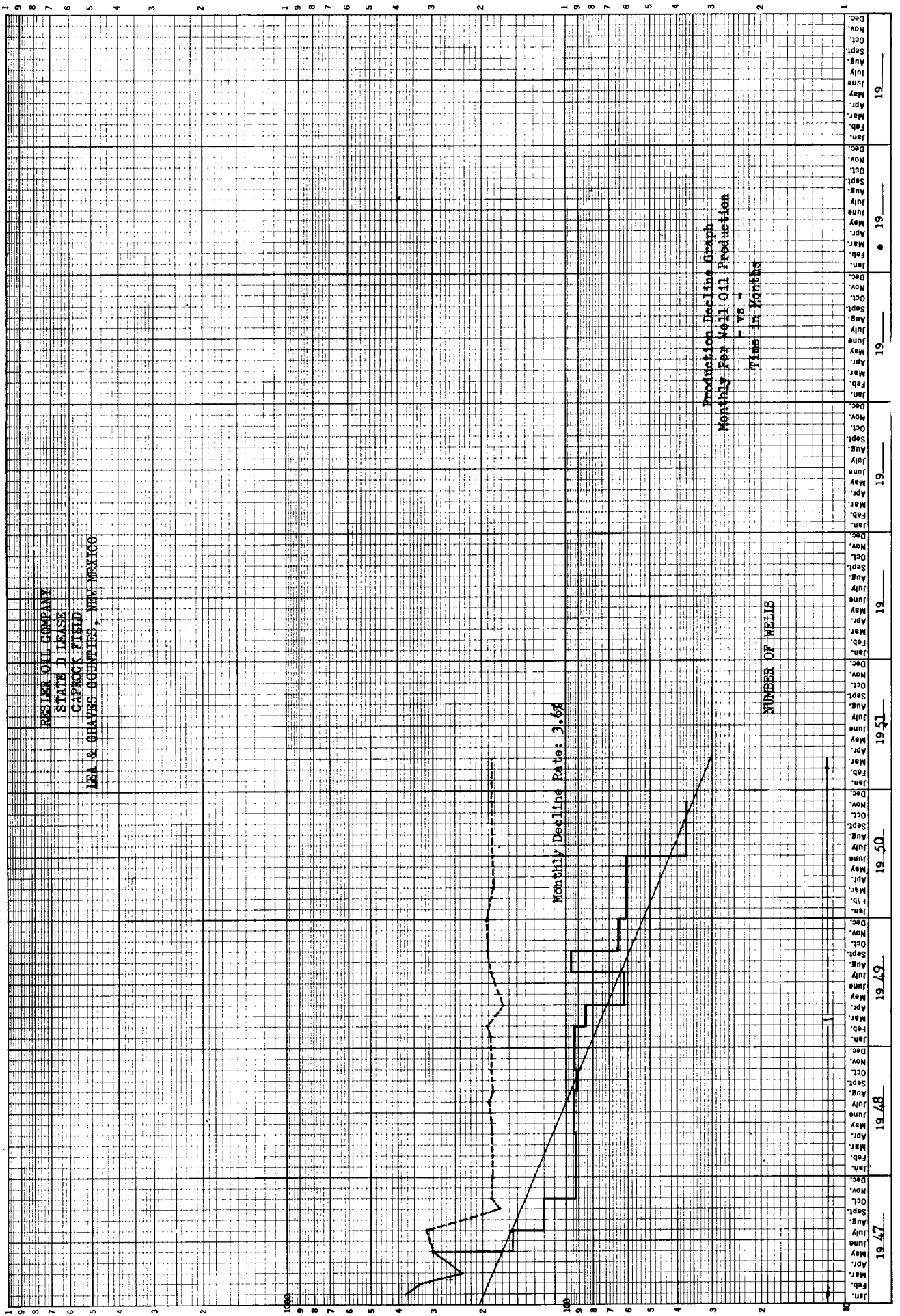


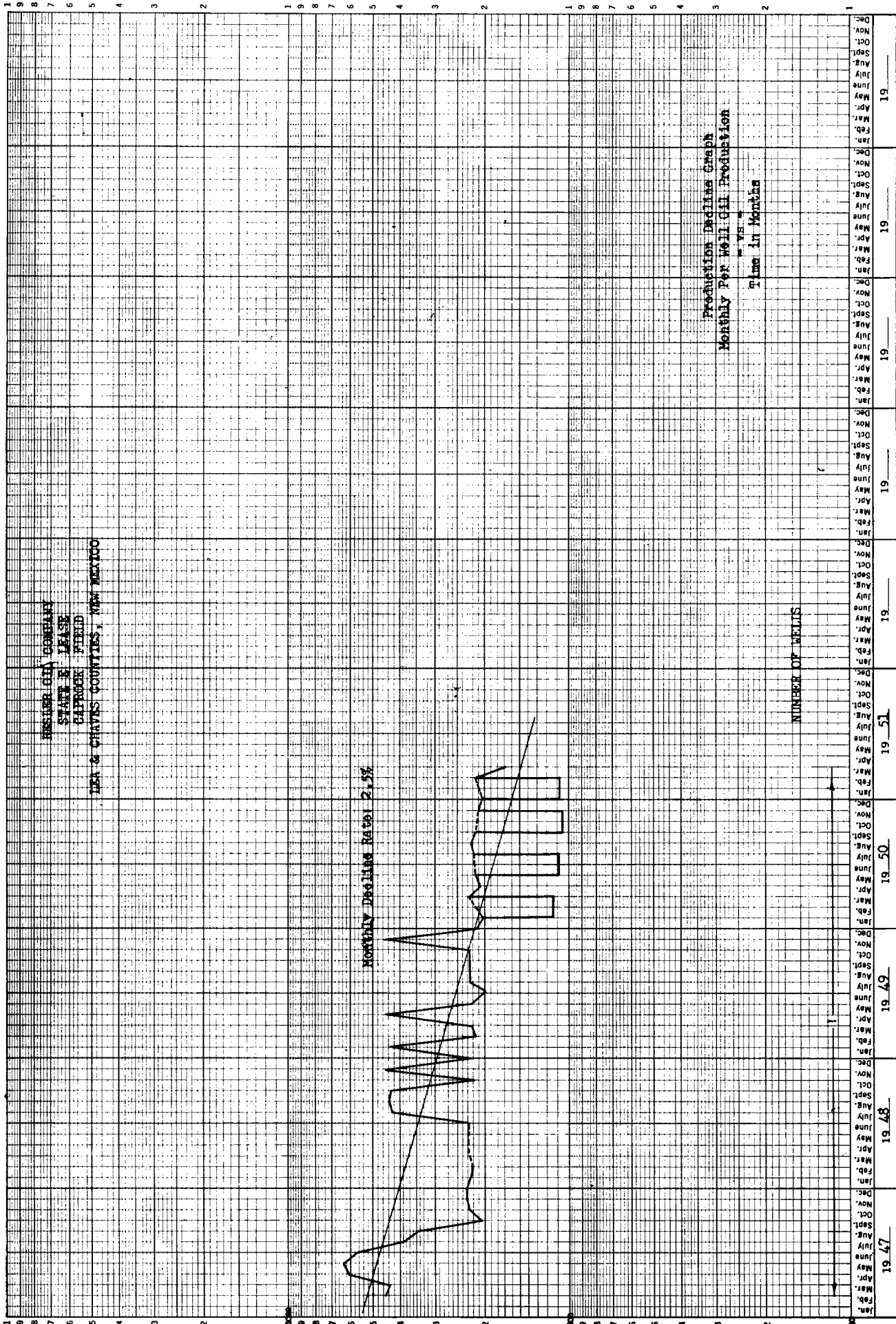
MONTHLY PER WELL OIL PRODUCTION IN BARRELS

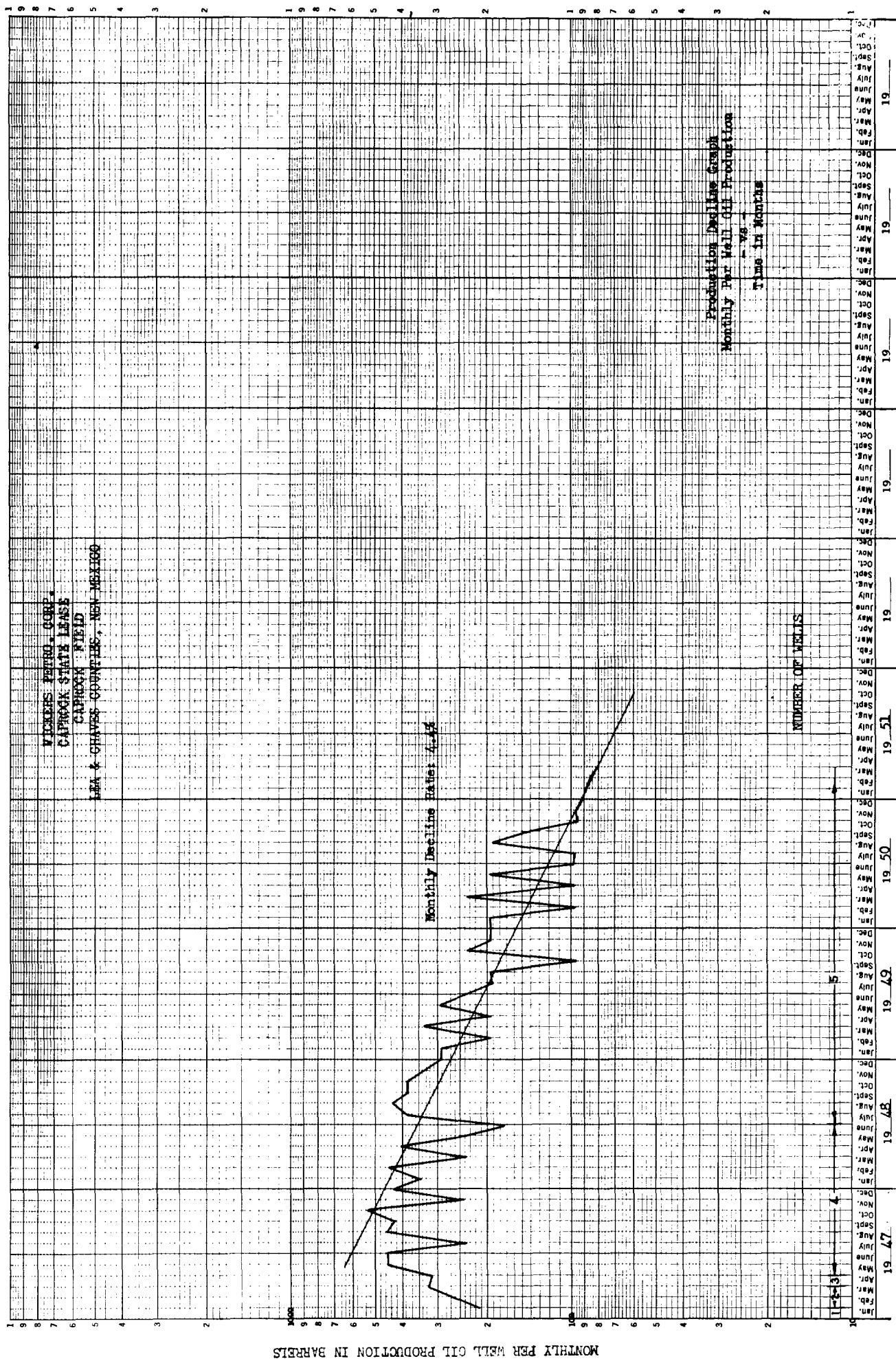


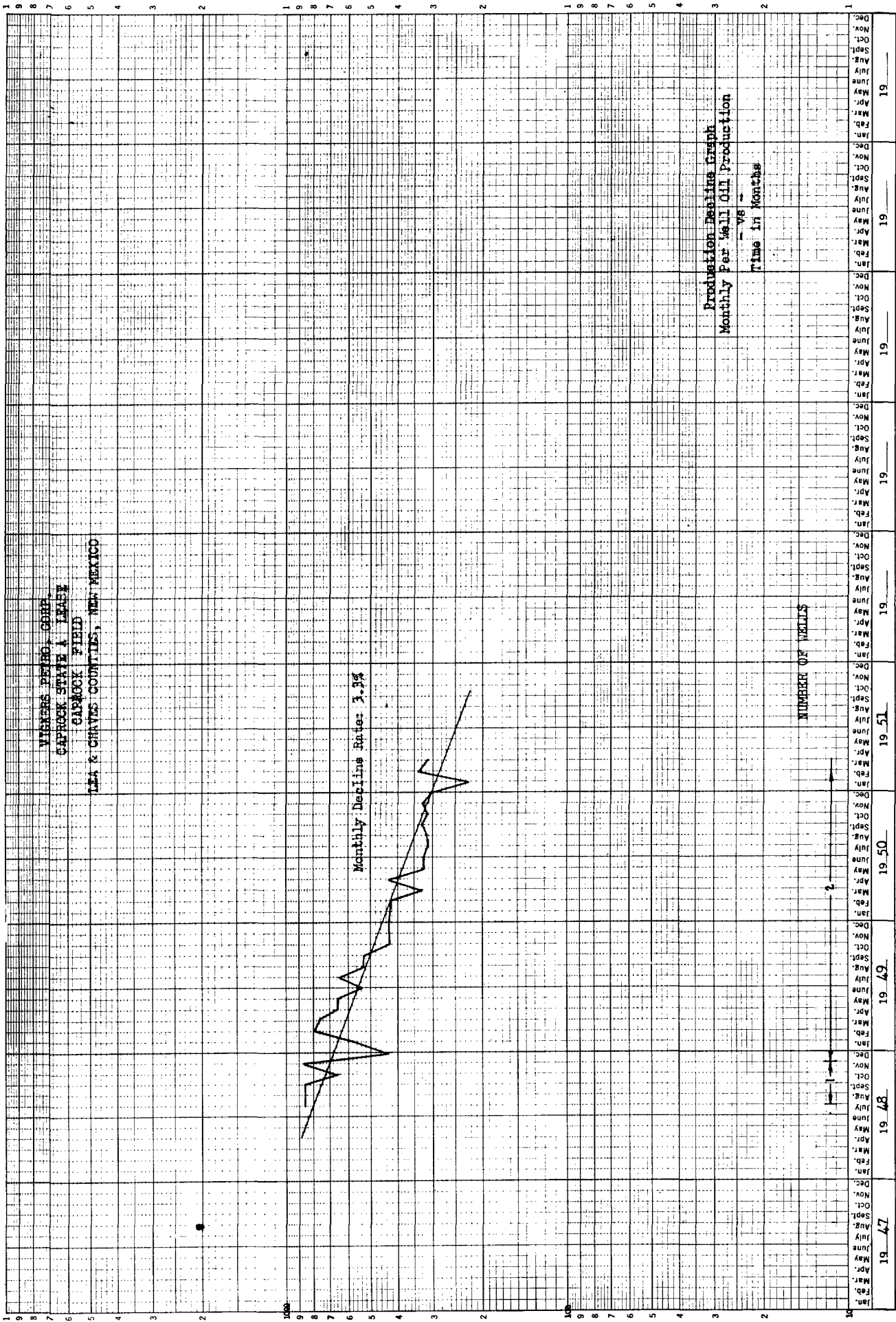
MONTHLY PER WELL OIL PRODUCTION IN BARRELS

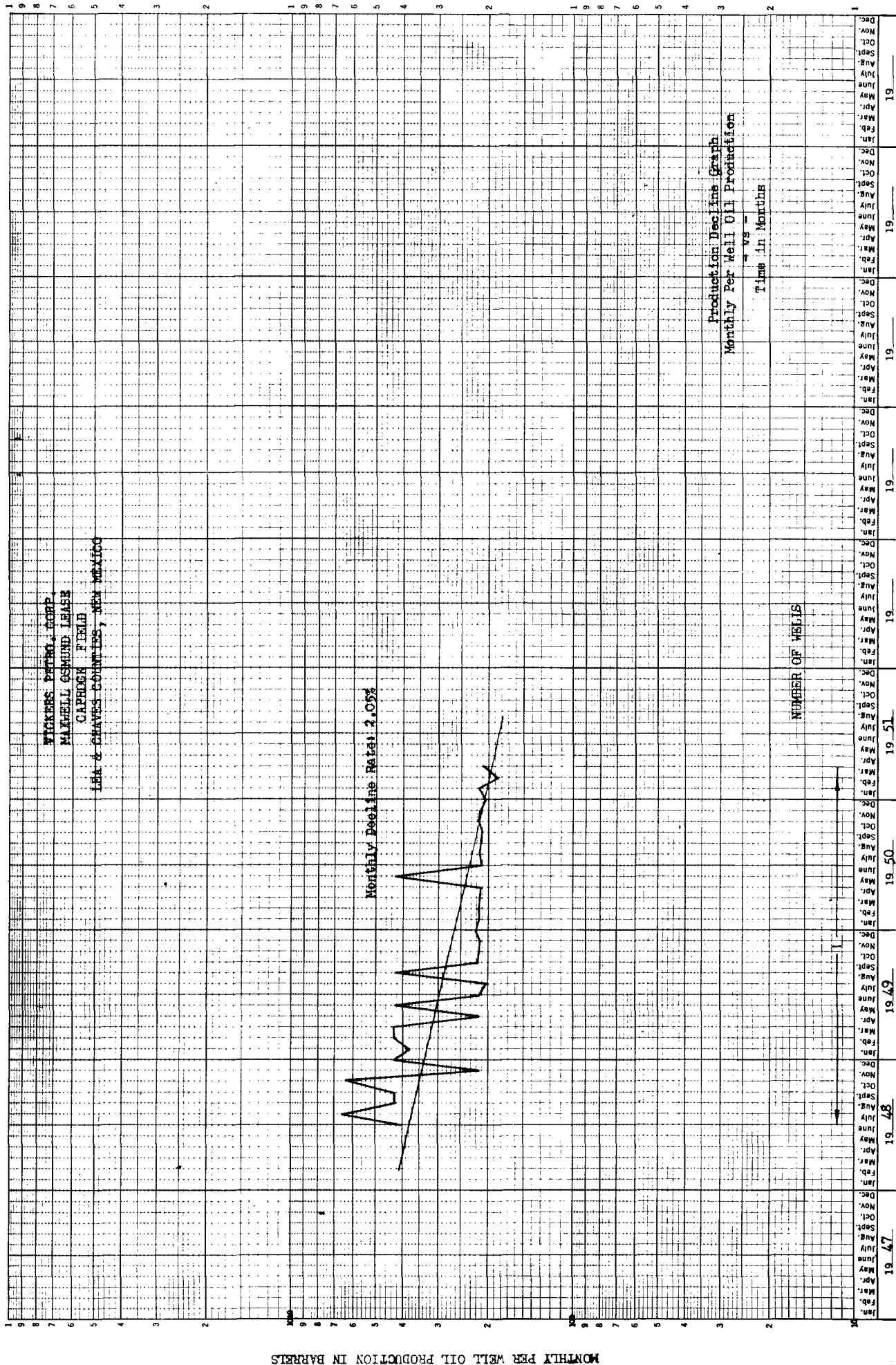
MONTHLY PER WELL OIL PRODUCTION IN BARRELS



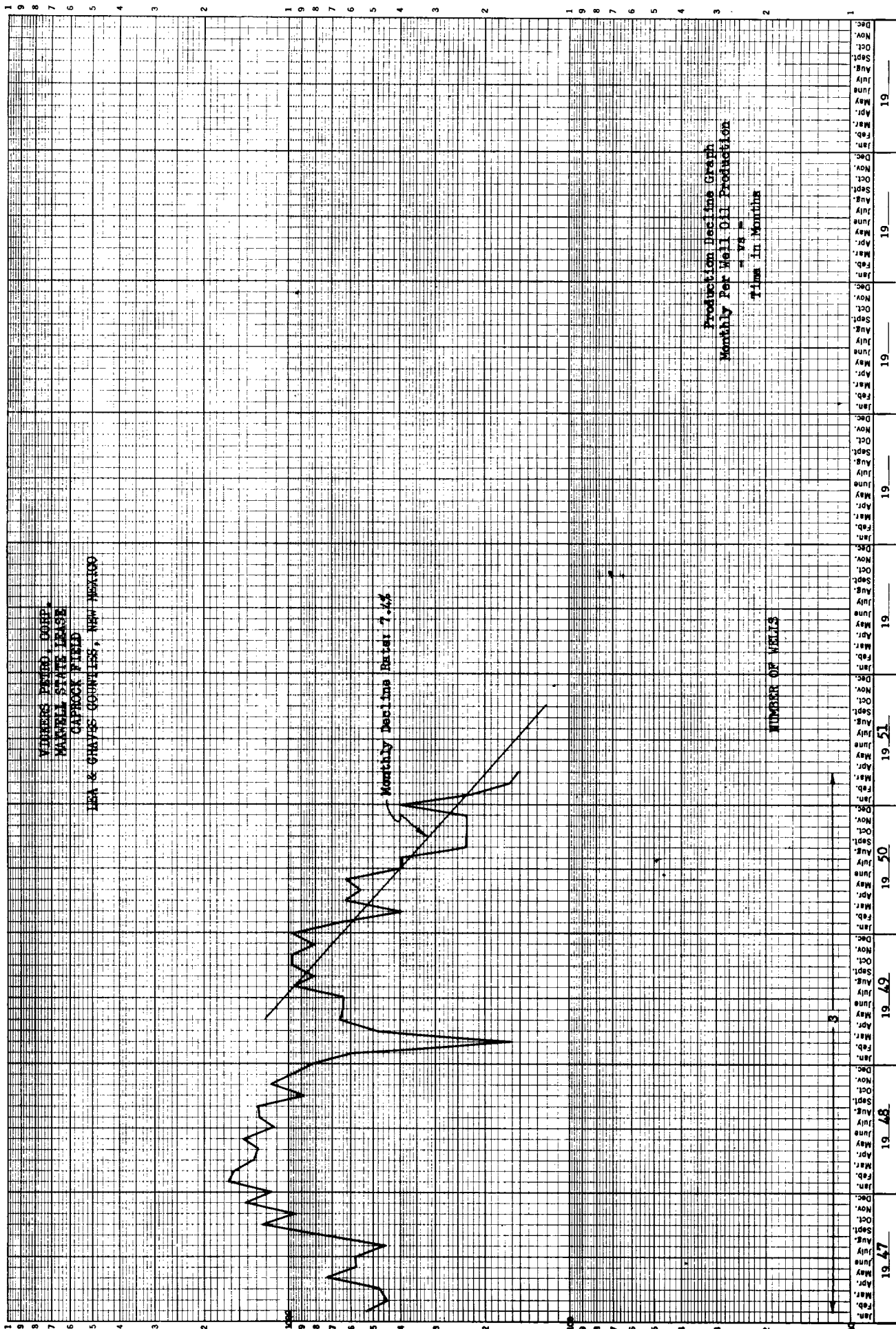




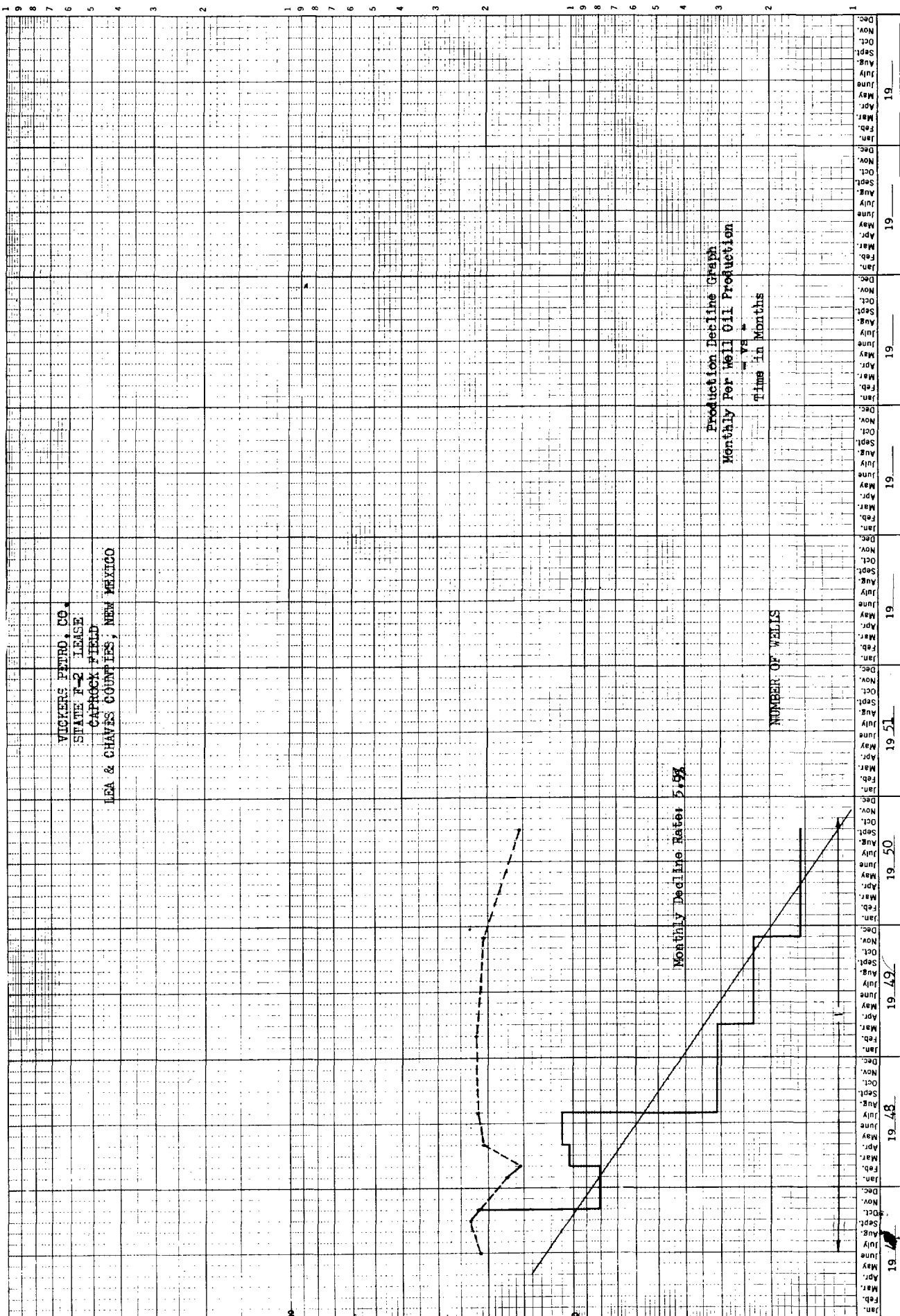




MONTHLY PER WELL OIL PRODUCTION IN BARRELS



MONTHLY PER WELL OIL PRODUCTION IN BARRELS



MONTHLY PER WELL OIL PRODUCTION IN BARRELS

