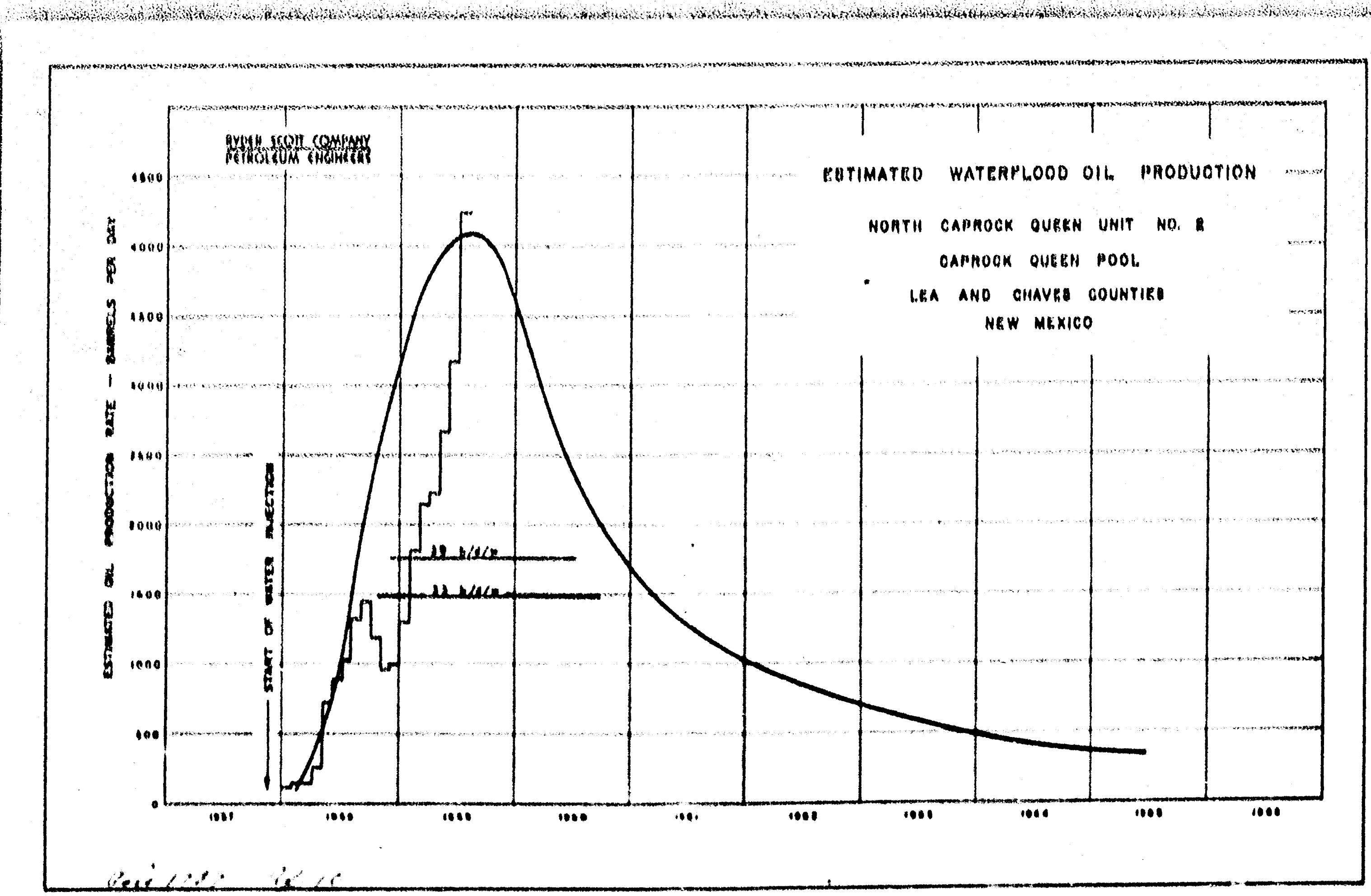
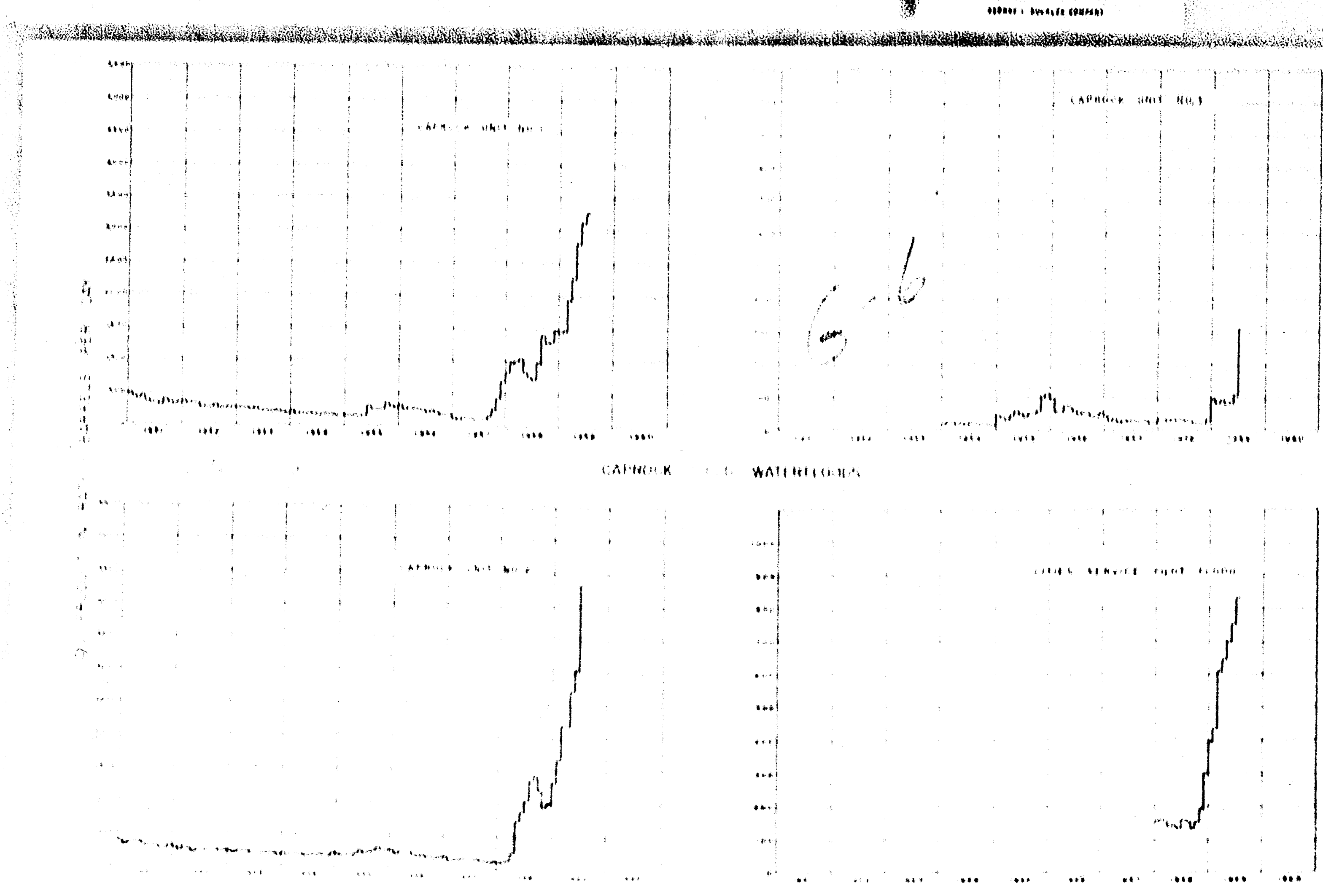
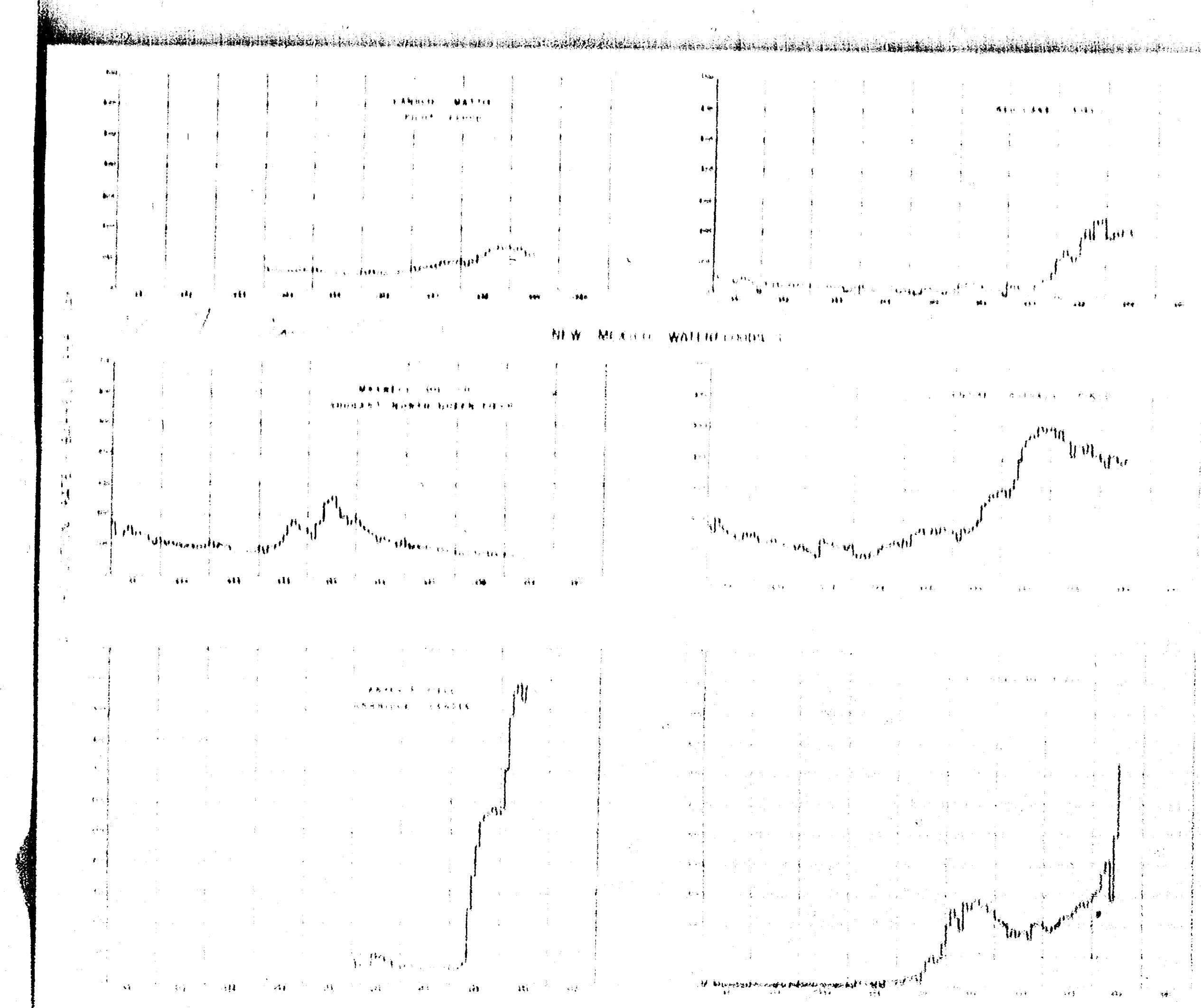
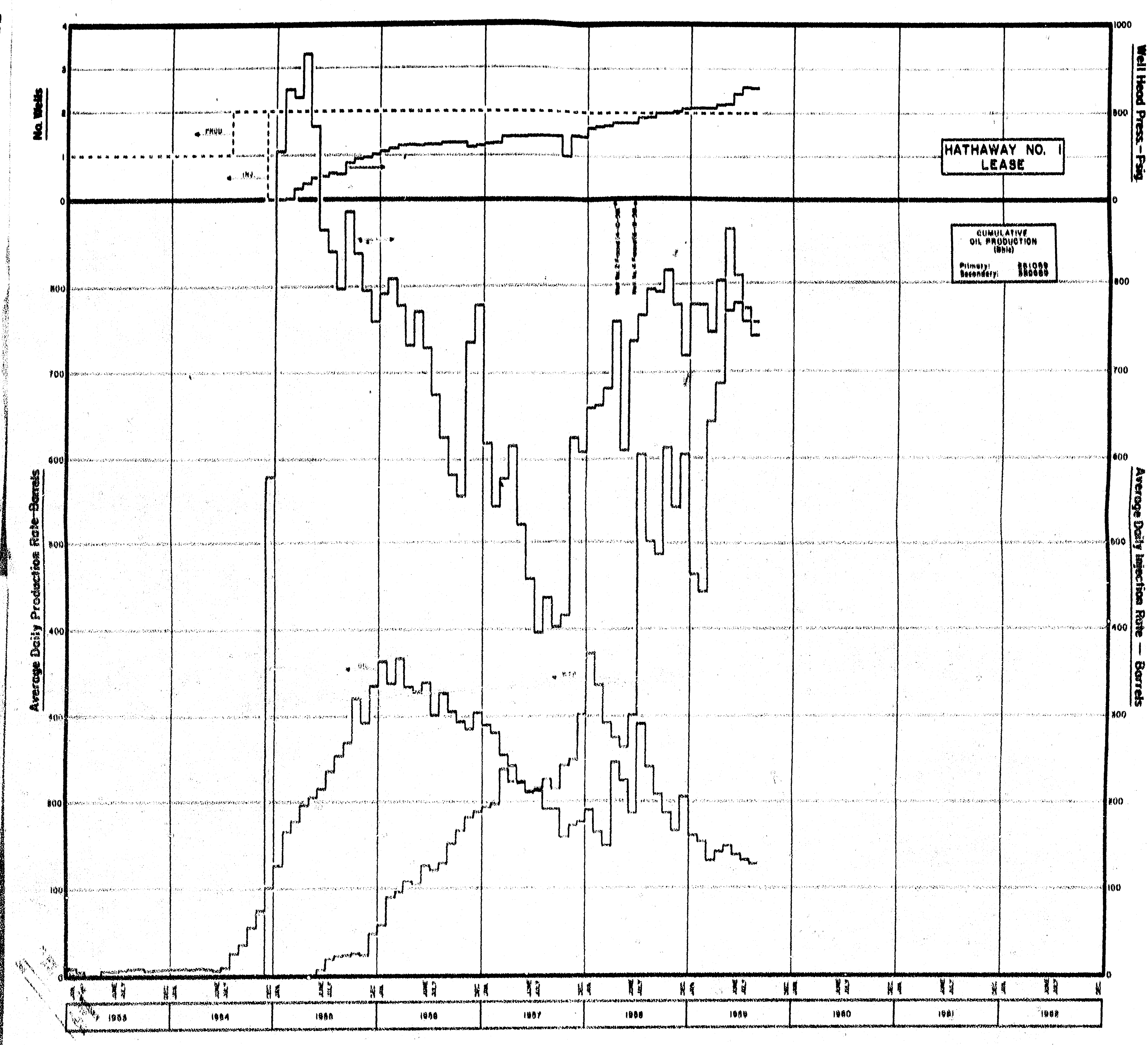
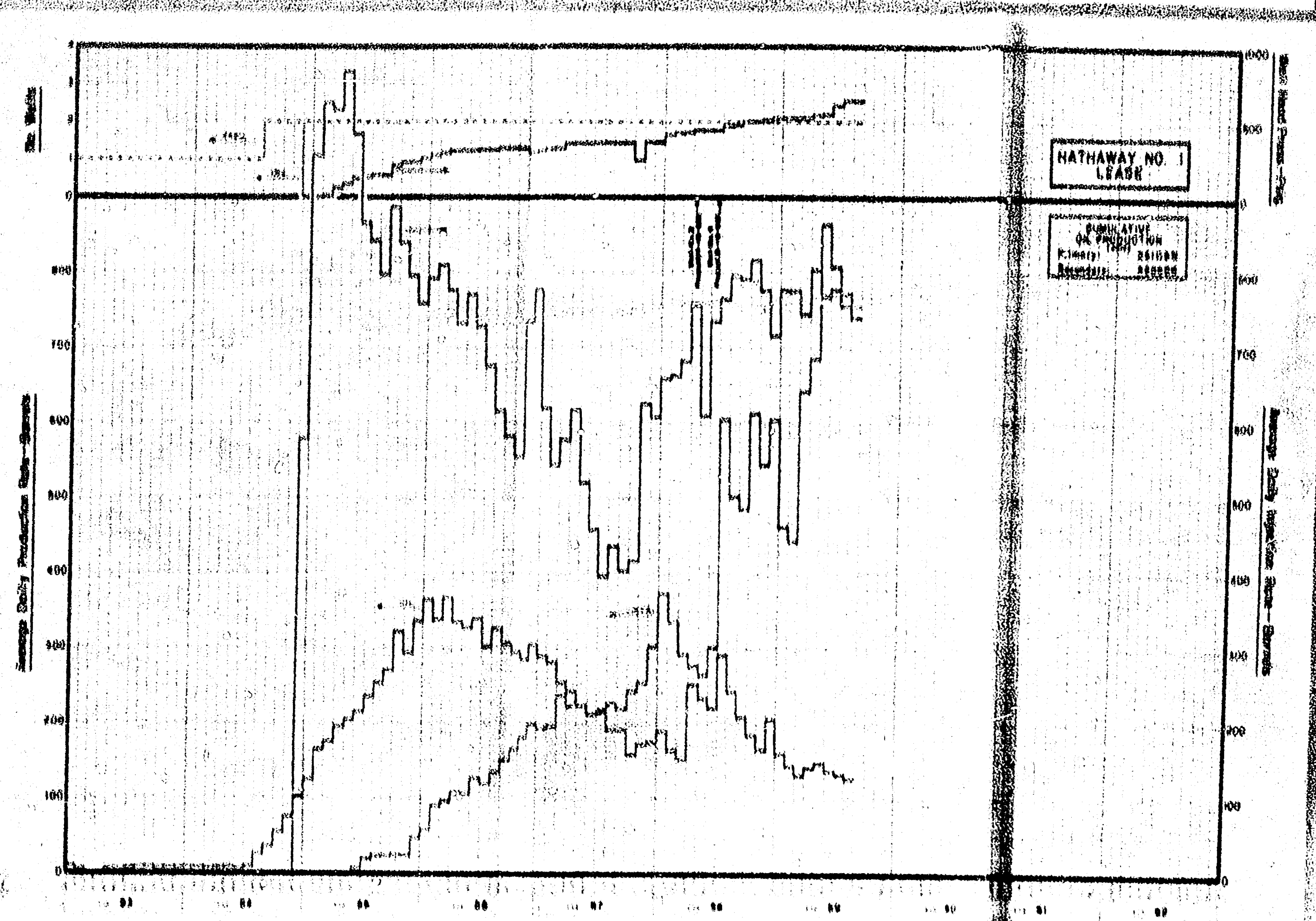
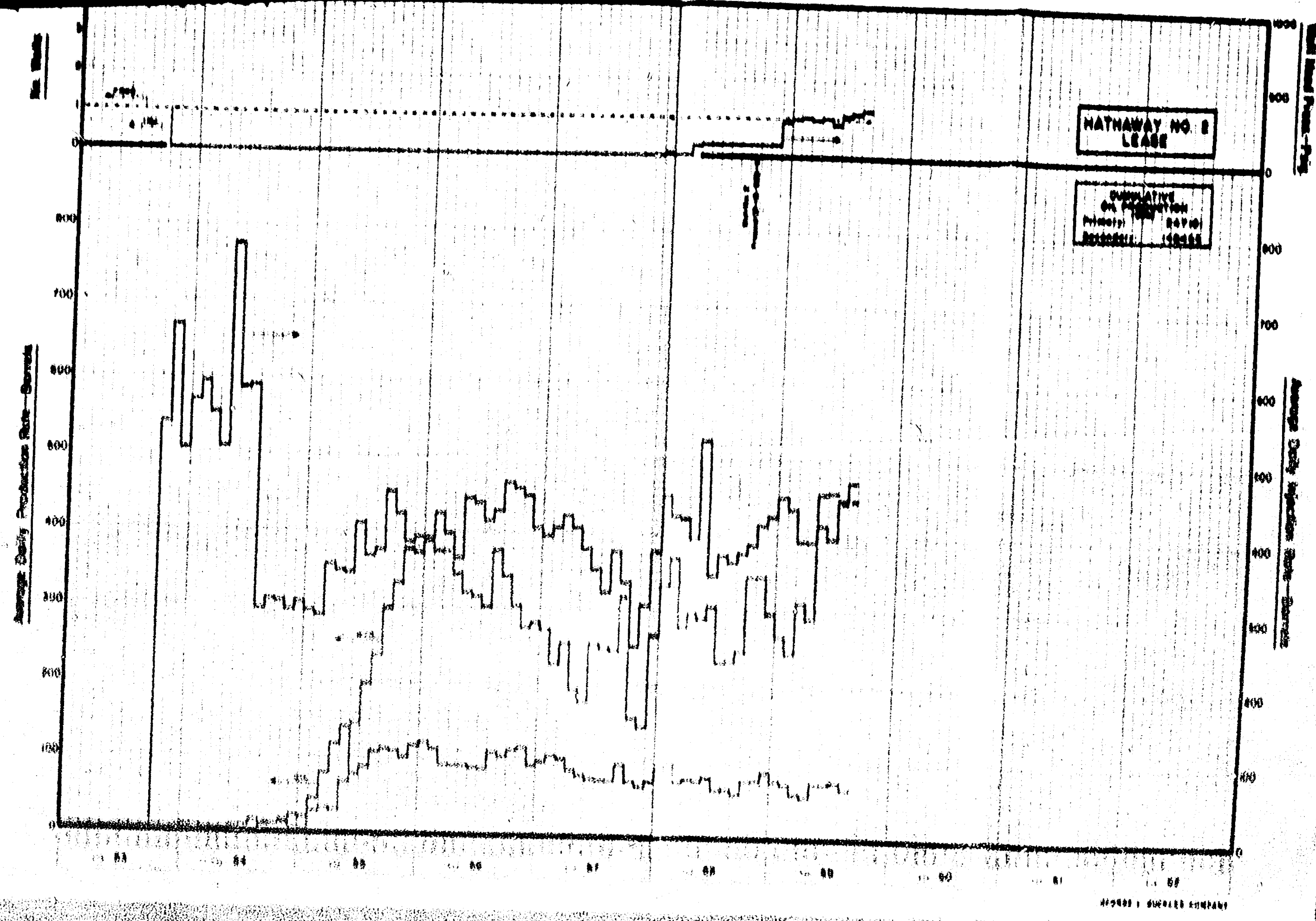
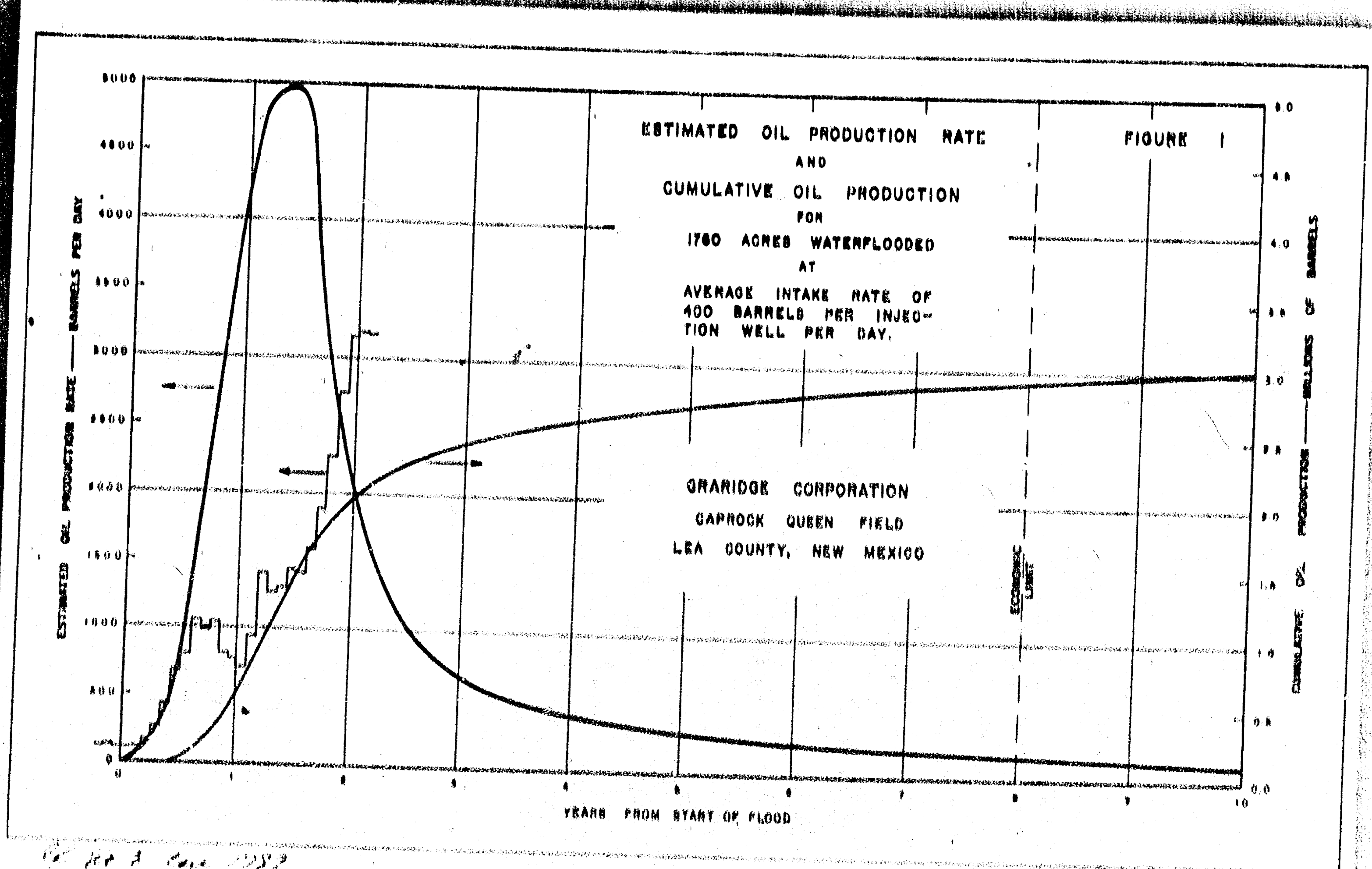
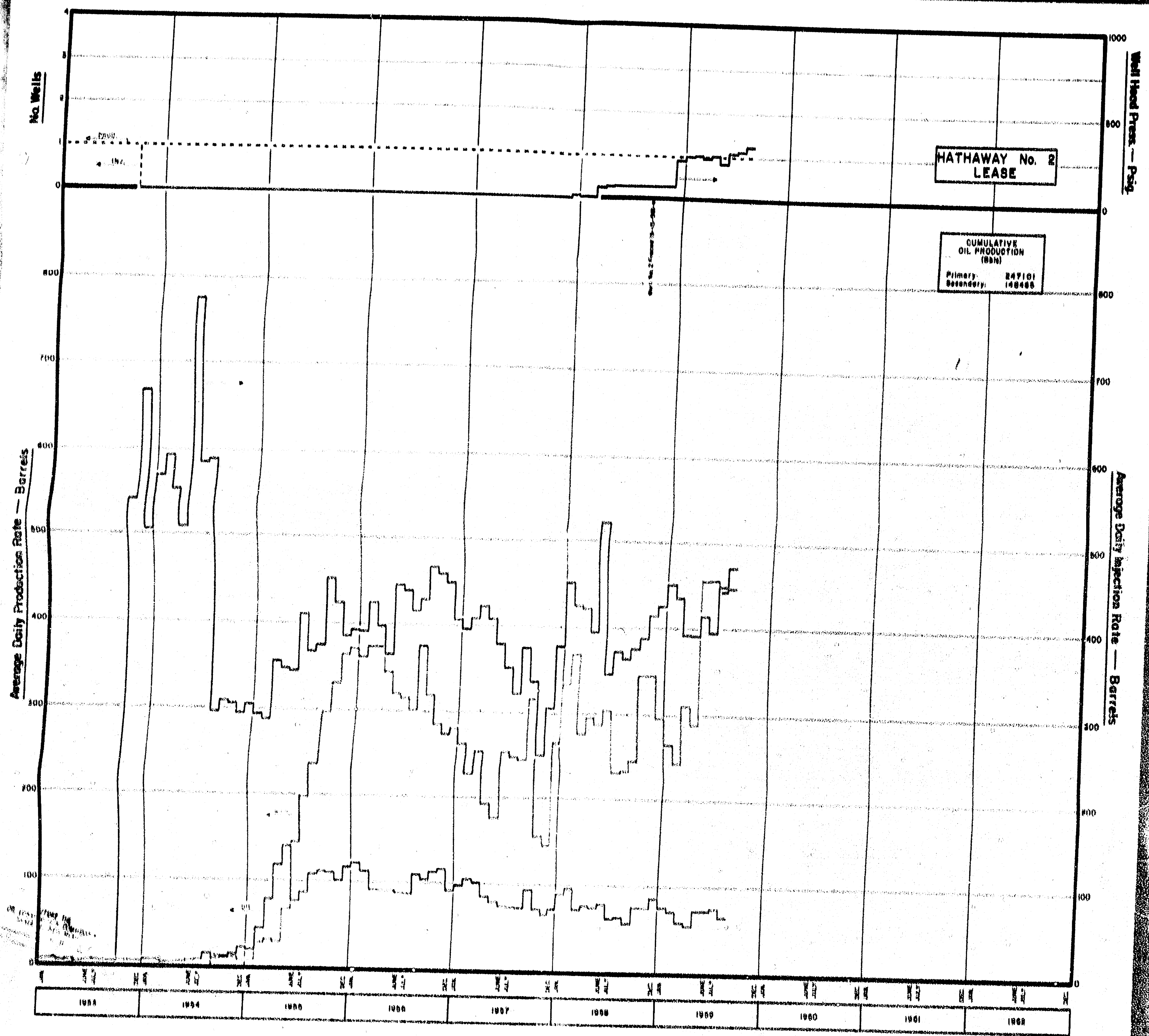




Case No.
1787
 Large Exhibits



Exhibit

RELATIVE OF WATERFLOOD TO TOTAL OIL PRODUCTION

Year	Total Oil (Bbl/D)	Waterflood Oil (Bbl/D)	% of Total	Production (Bbl)
1953	389,000	57,000	14.65	840
1954	340,000	56,000	16.47	919
1955	341,000	41,000	12.32	917
1956	338,000	41,000	12.16	940
1957	308,000	31,000	10.06	173
1958	313,000	30,000	9.58	108
1959	313,000	27,000	8.63	170
1960	319,000	28,000	8.78	183
1961	298,000	19,000	6.38	137
1962	278,000	19,000	6.83	130

Source: Annual data published by State Geological Survey of Kansas.

Exhibit

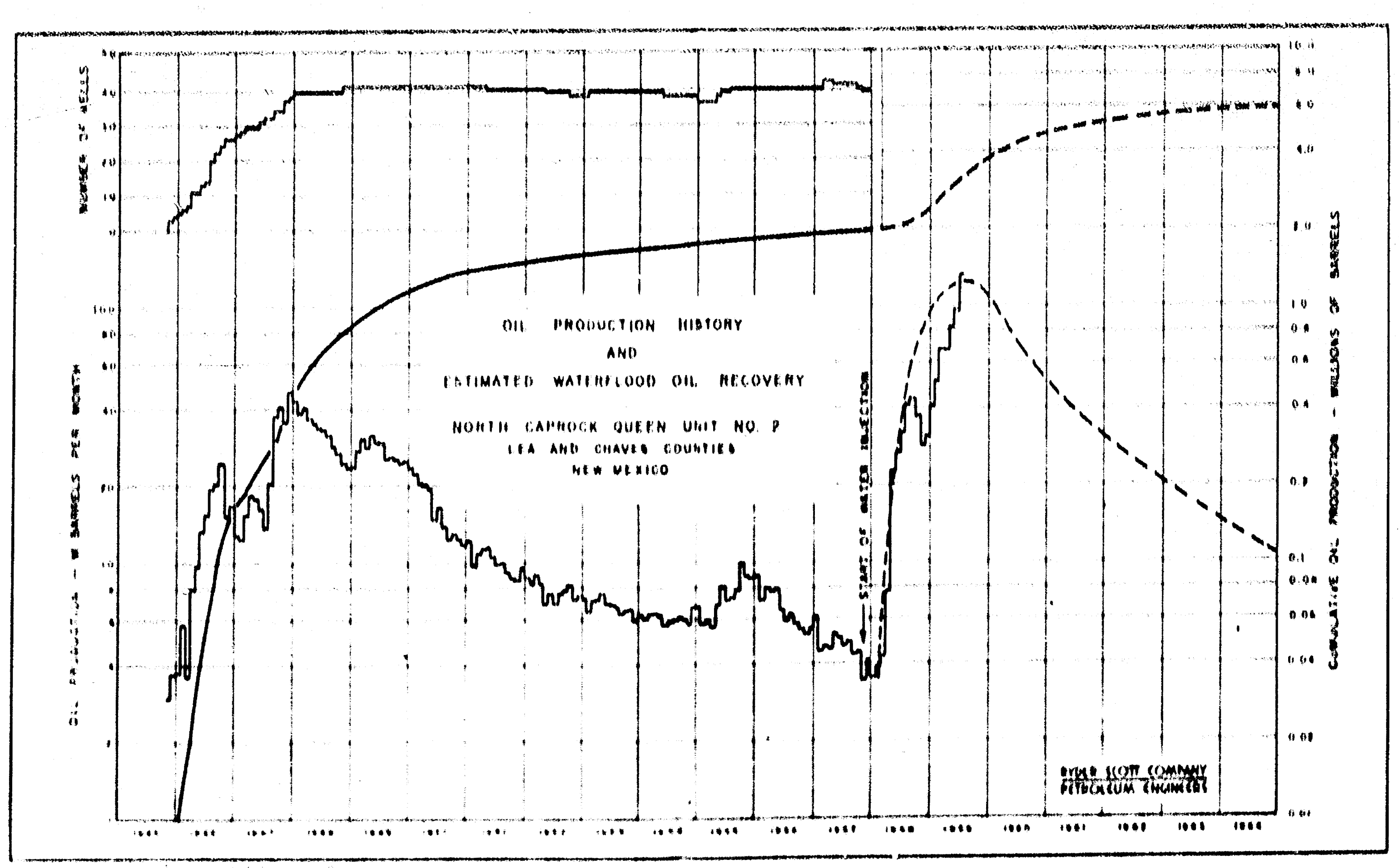
WATERFLOOD PRODUCTION IN OKLAHOMA - MAY, 1959

Month	Produced (Bbl)	Waterflooded (Bbl)	Waterflooded %	Produced (Bbl)	Waterflooded (Bbl)	Waterflooded %
January	7,180	1,050	14.63	7,180	1,050	14.63
February	6,153	1,097	17.83	6,153	1,097	17.83
March	6,319	1,090	17.18	6,319	1,090	17.18
April	6,116	1,111	18.17	6,116	1,111	18.17
May	6,258	1,111	17.75	6,258	1,111	17.75
June	6,213	1,111	17.88	6,213	1,111	17.88
July	6,116	1,111	18.17	6,116	1,111	18.17
August	6,213	1,111	17.88	6,213	1,111	17.88
September	6,213	1,111	17.88	6,213	1,111	17.88
October	6,213	1,111	17.88	6,213	1,111	17.88
November	6,213	1,111	17.88	6,213	1,111	17.88
December	6,213	1,111	17.88	6,213	1,111	17.88
Average	6,213	1,111	17.88	6,213	1,111	17.88

Exhibit

WATERFLOOD PRODUCTION IN OKLAHOMA - MAY, 1959

Project	Produced (Bbl)	Waterflooded (Bbl)	Waterflooded %
1	1,000	1,000	100.00
2	1,000	1,000	100.00
3	1,000	1,000	100.00
4	1,000	1,000	100.00
5	1,000	1,000	100.00
6	1,000	1,000	100.00
7	1,000	1,000	100.00
8	1,000	1,000	100.00
9	1,000	1,000	100.00
10	1,000	1,000	100.00
11	1,000	1,000	100.00
12	1,000	1,000	100.00
13	1,000	1,000	100.00
14	1,000	1,000	100.00
15	1,000	1,000	100.00
16	1,000	1,000	100.00
17	1,000	1,000	100.00
18	1,000	1,000	100.00
19	1,000	1,000	100.00
20	1,000	1,000	100.00
21	1,000	1,000	100.00
22	1,000	1,000	100.00
23	1,000	1,000	100.00
24	1,000	1,000	100.00
25	1,000	1,000	100.00
26	1,000	1,000	100.00
27	1,000	1,000	100.00
28	1,000	1,000	100.00
29	1,000	1,000	100.00
30	1,000	1,000	100.00
31	1,000	1,000	100.00
32	1,000	1,000	100.00
33	1,000	1,000	100.00
34	1,000	1,000	100.00
35	1,000	1,000	100.00
36	1,000	1,000	100.00
37	1,000	1,000	100.00
38	1,000	1,000	100.00
39	1,000	1,000	100.00
40	1,000	1,000	100.00
41	1,000	1,000	100.00
42	1,000	1,000	100.00
43	1,000	1,000	100.00
44	1,000	1,000	100.00
45	1,000	1,000	100.00
46	1,000	1,000	100.00
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74	1,000	1,000	100.00
75	1,000	1,000	100.00
76	1,000	1,000	100.00
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87	1,000	1,000	100.00
88	1,000	1,000	100.00
89	1,000	1,000	100.00
90	1,000	1,000	100.00
91	1,000	1,000	100.00
92	1,000	1,000	100.00
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96	1,000	1,000	100.00
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99	1,000	1,000	100.00
100	1,000	1,000	100.00



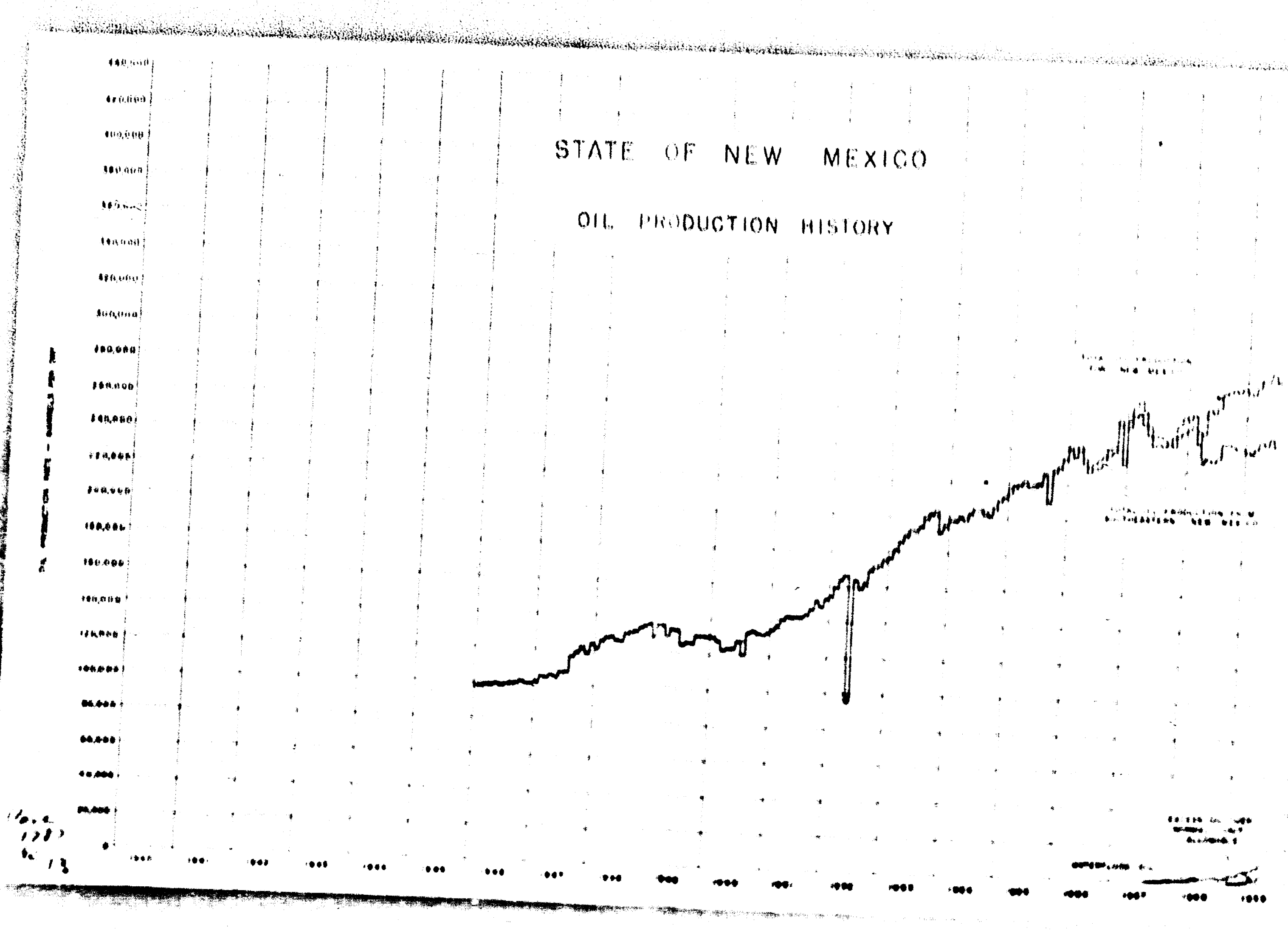
Exhibit

SUMMARY OF WATERFLOODING IN OKLAHOMA

May, 1959

Total State Production, B/D	556,000
Minimum Allowable, B/D	150,000
Waterflooded Production, B/D	150,000
% of Total State Production	27.00
Number of Waterflood oil wells	17,170
Number of Waterflood input wells	24,500
Waterflood production, B/D/oil well	8.74
Waterflood production, B/D/total well	4.80
Number of authorized projects included	643

✓ All projects are not included; these projects did not report the amount of oil produced.

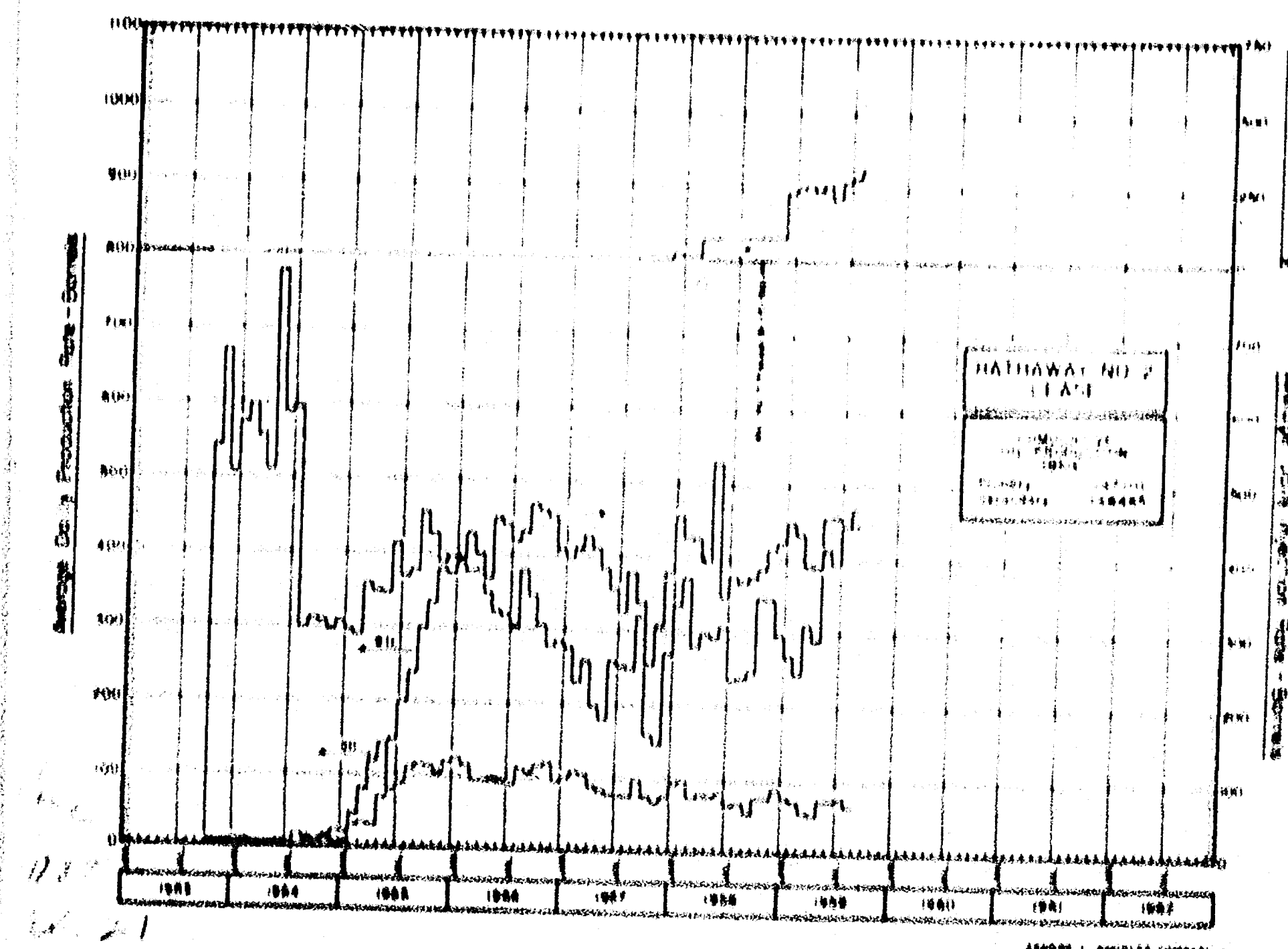


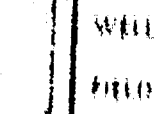
GRARIDGE CORPORATION
OIL PRODUCTION RATE FOR
ENTIRE CAPROCK FIELD
LJA AND CHAVEZ COUNTIES, NEW MEXICO

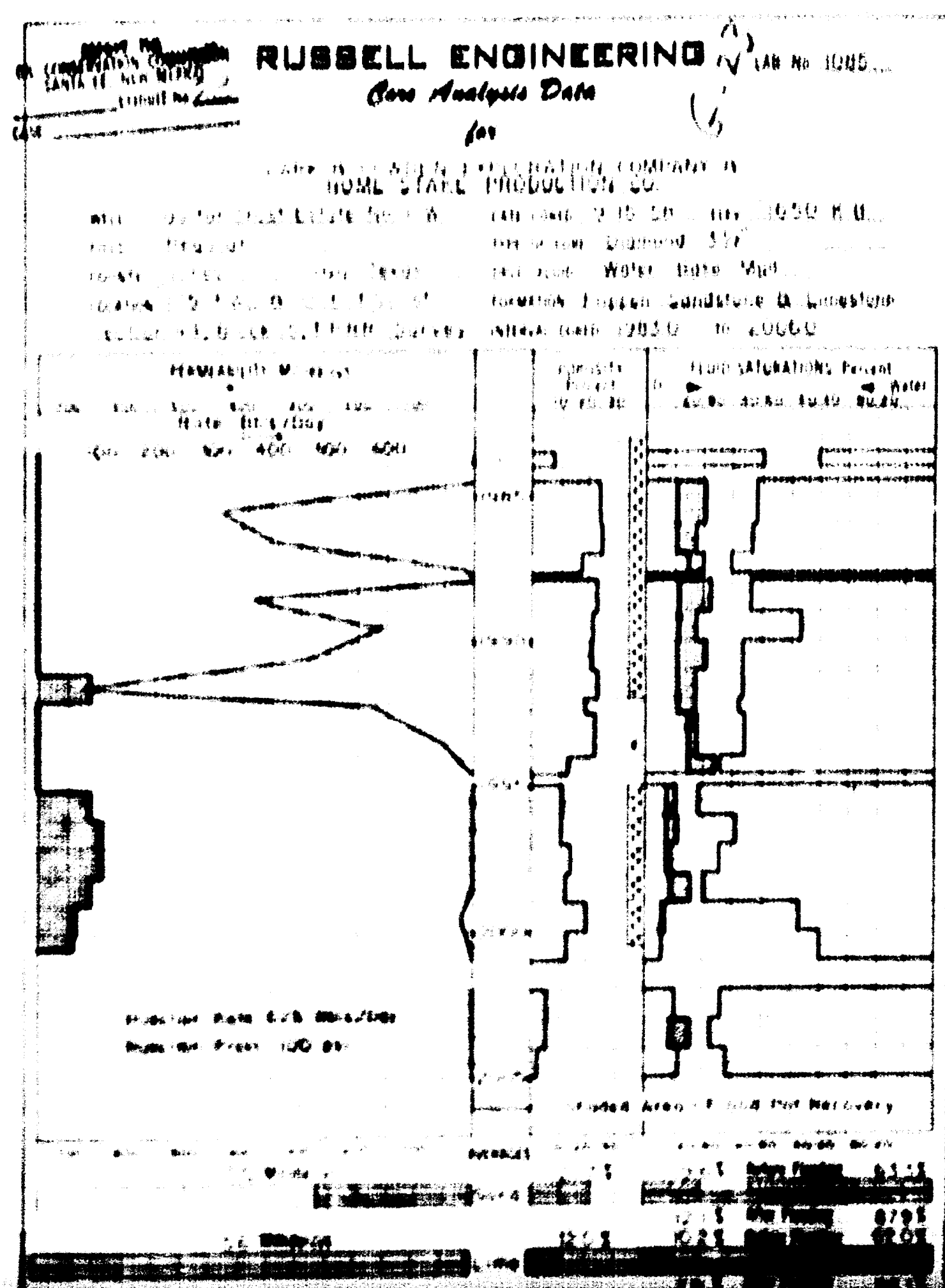
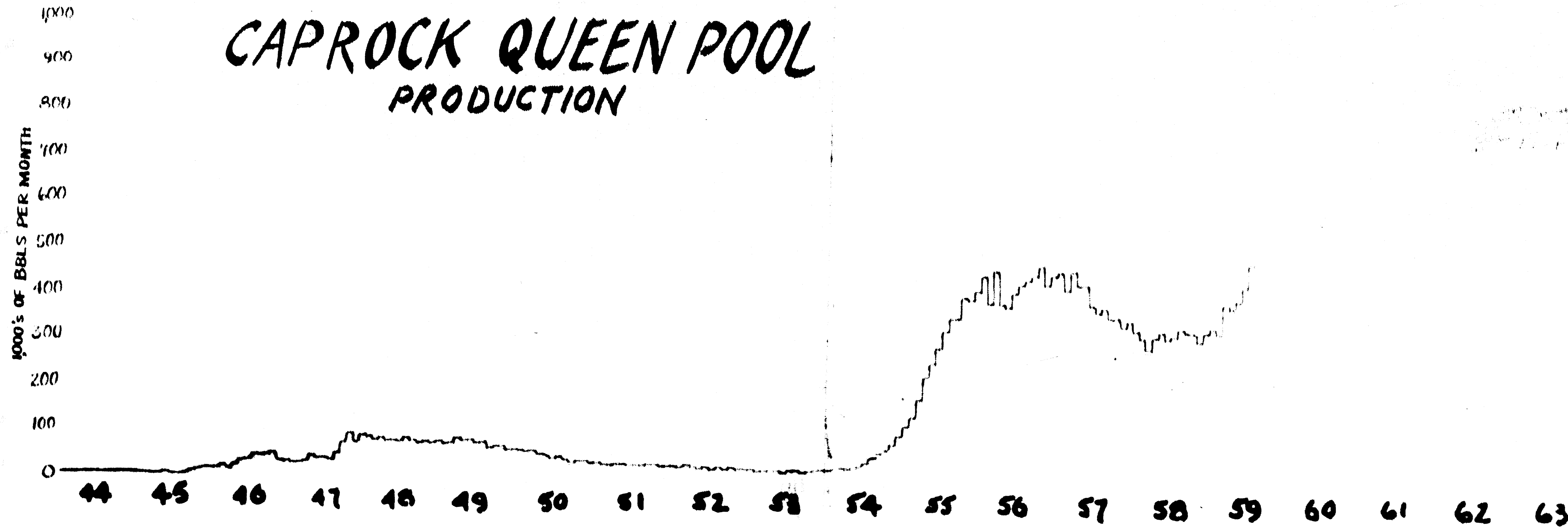
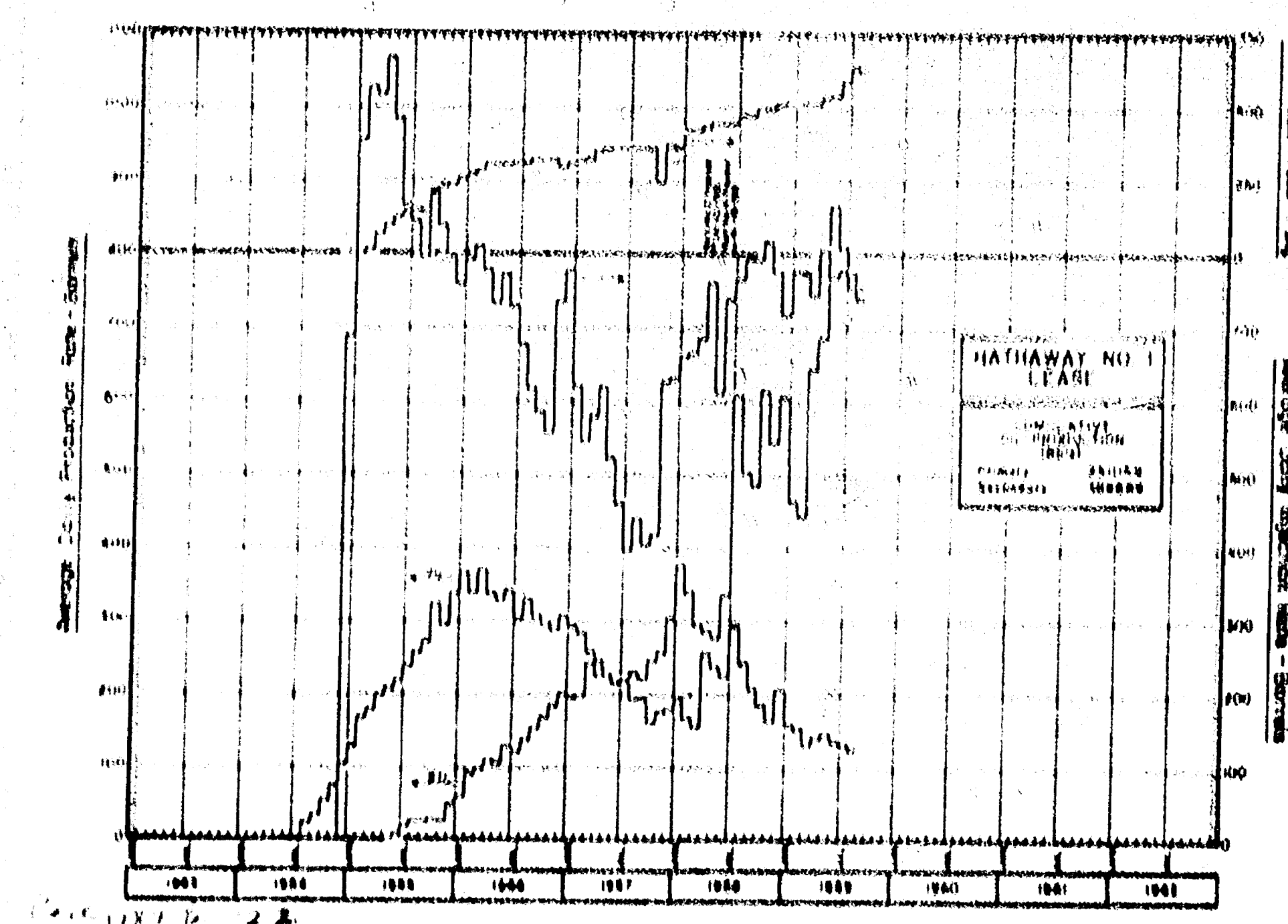
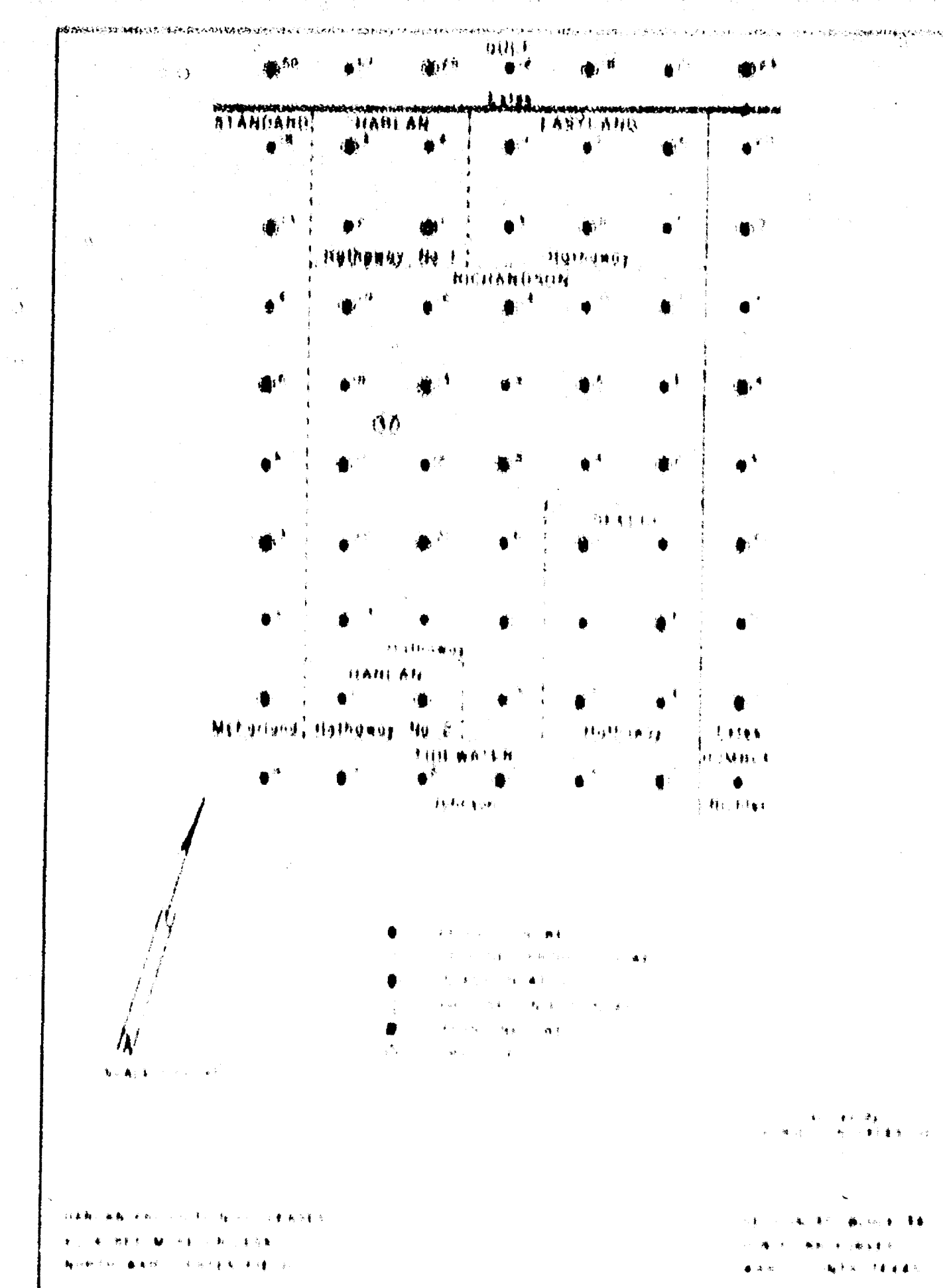
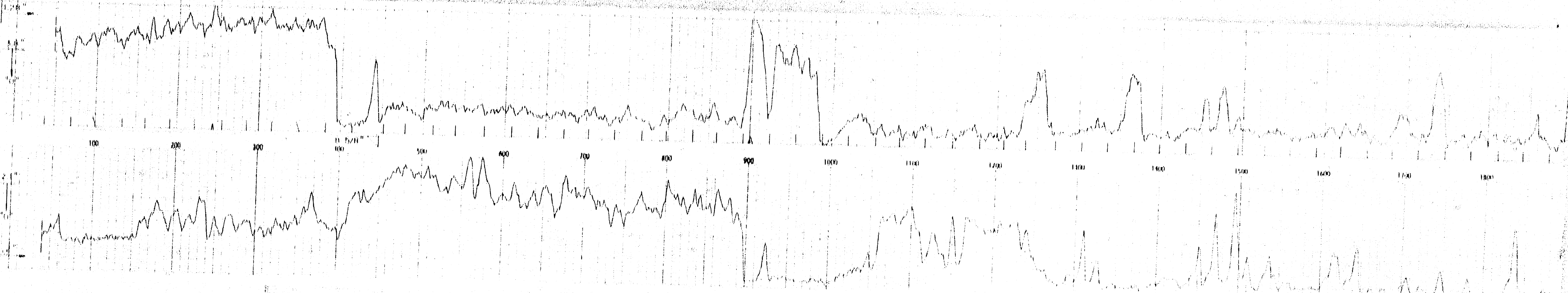
ESTIMATED WATER-INJECTED PRODUCTION
AT 10% WATER INJECTION PER YEAR
1947-1948
CONSTANT RATE OF DEVELOPMENT AT
4000 BBL PER YEAR
5 YEARS TO REACH 10% WATER INJECTION
STARTING JANUARY 1, 1948

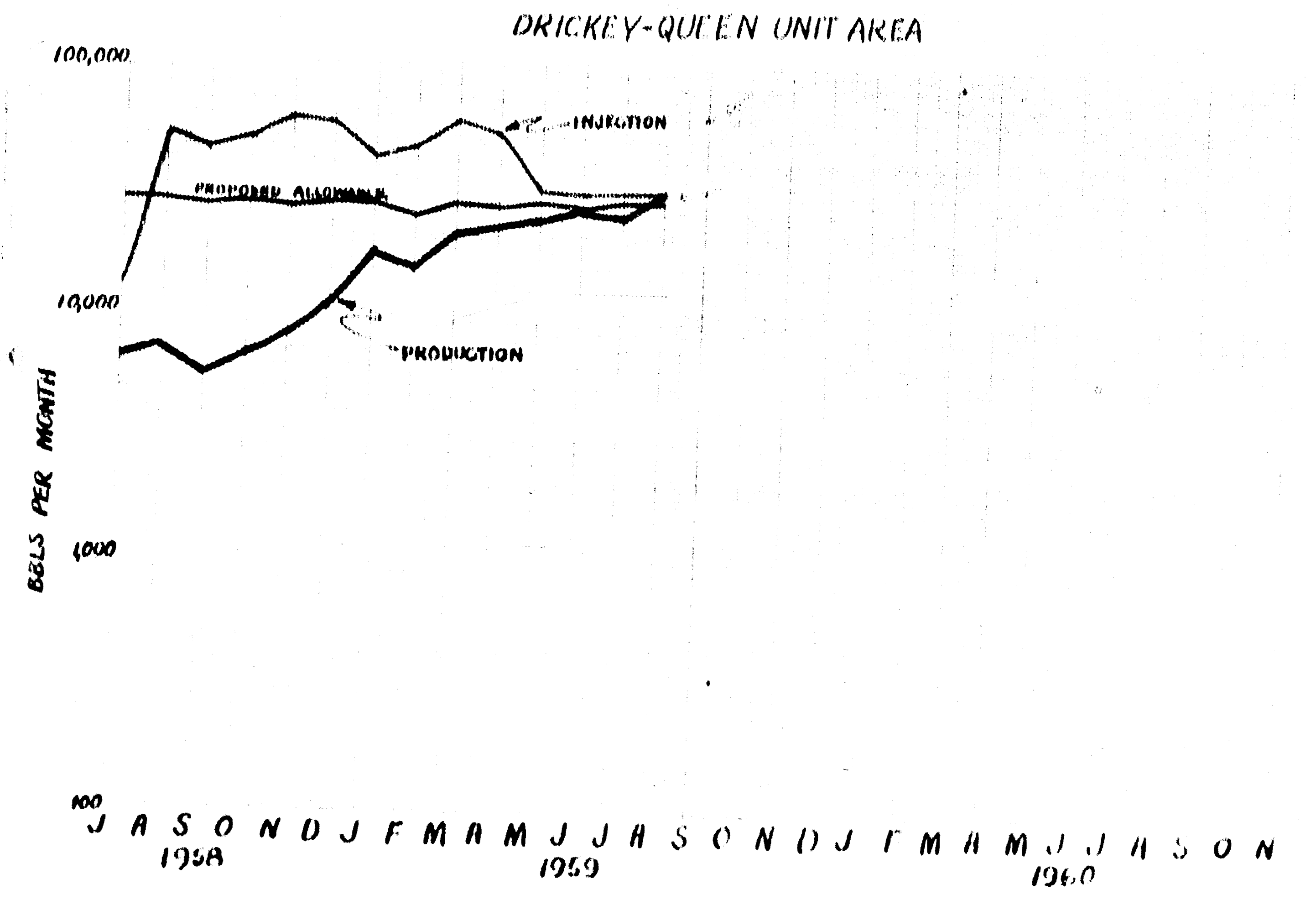
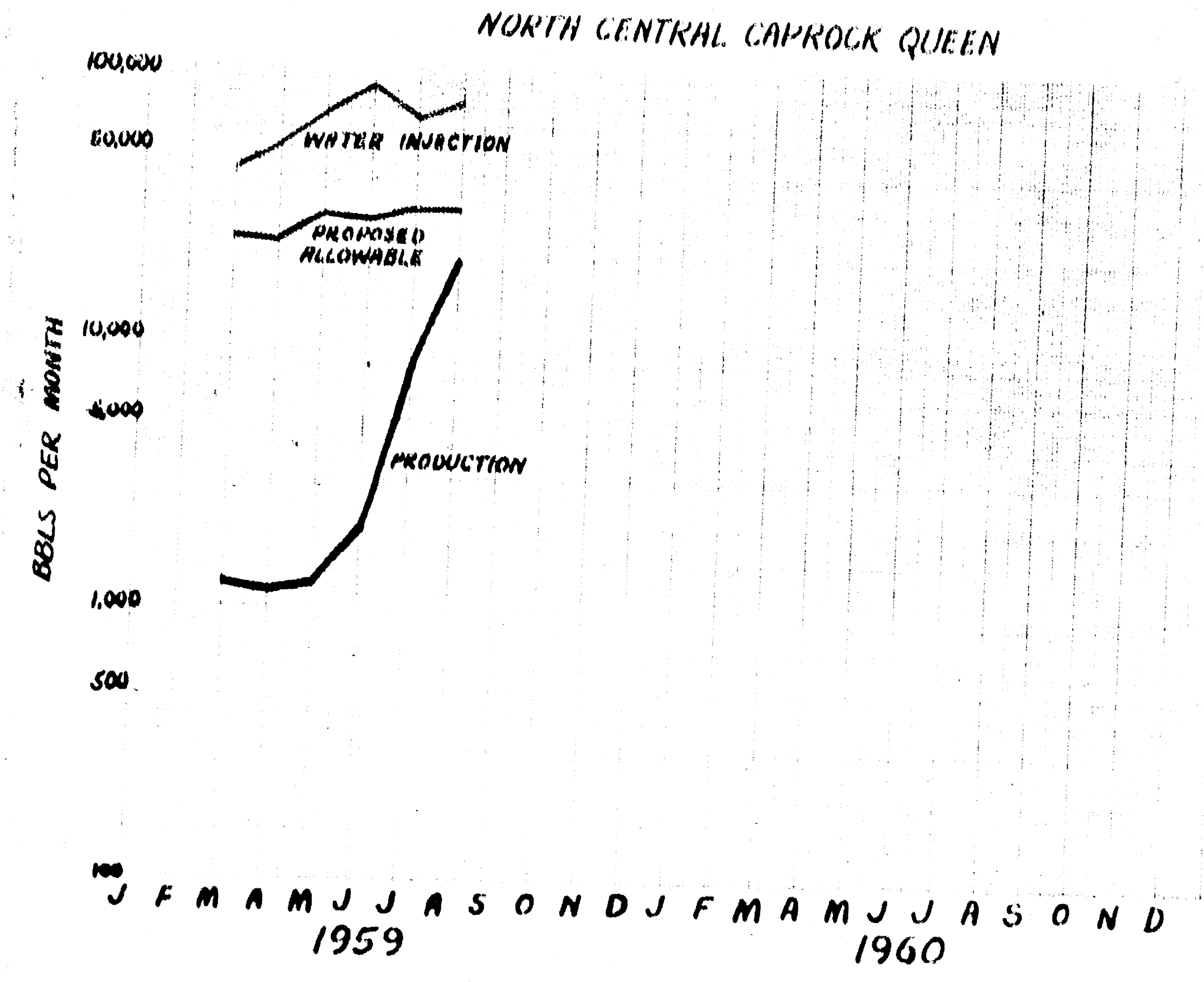
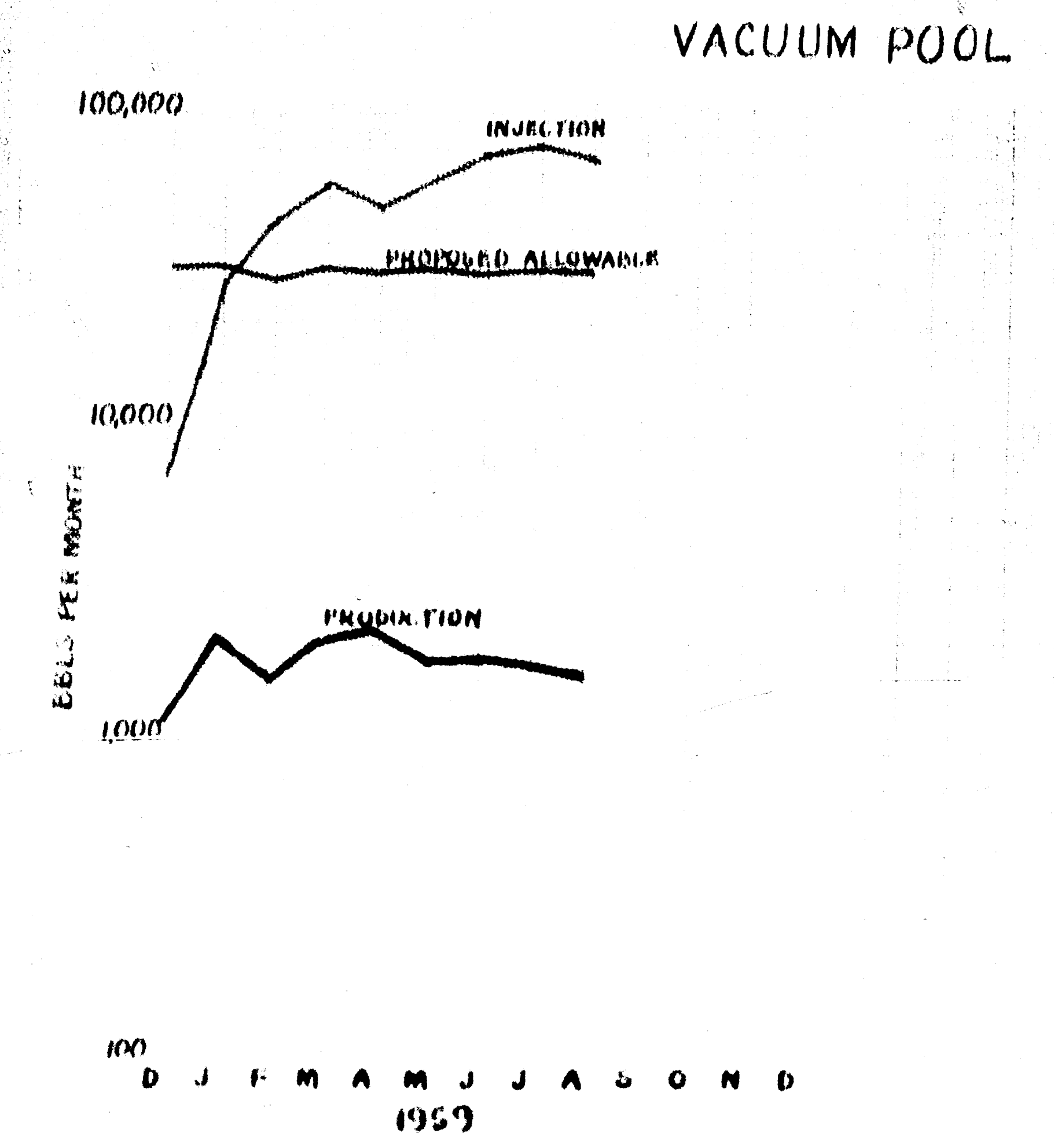
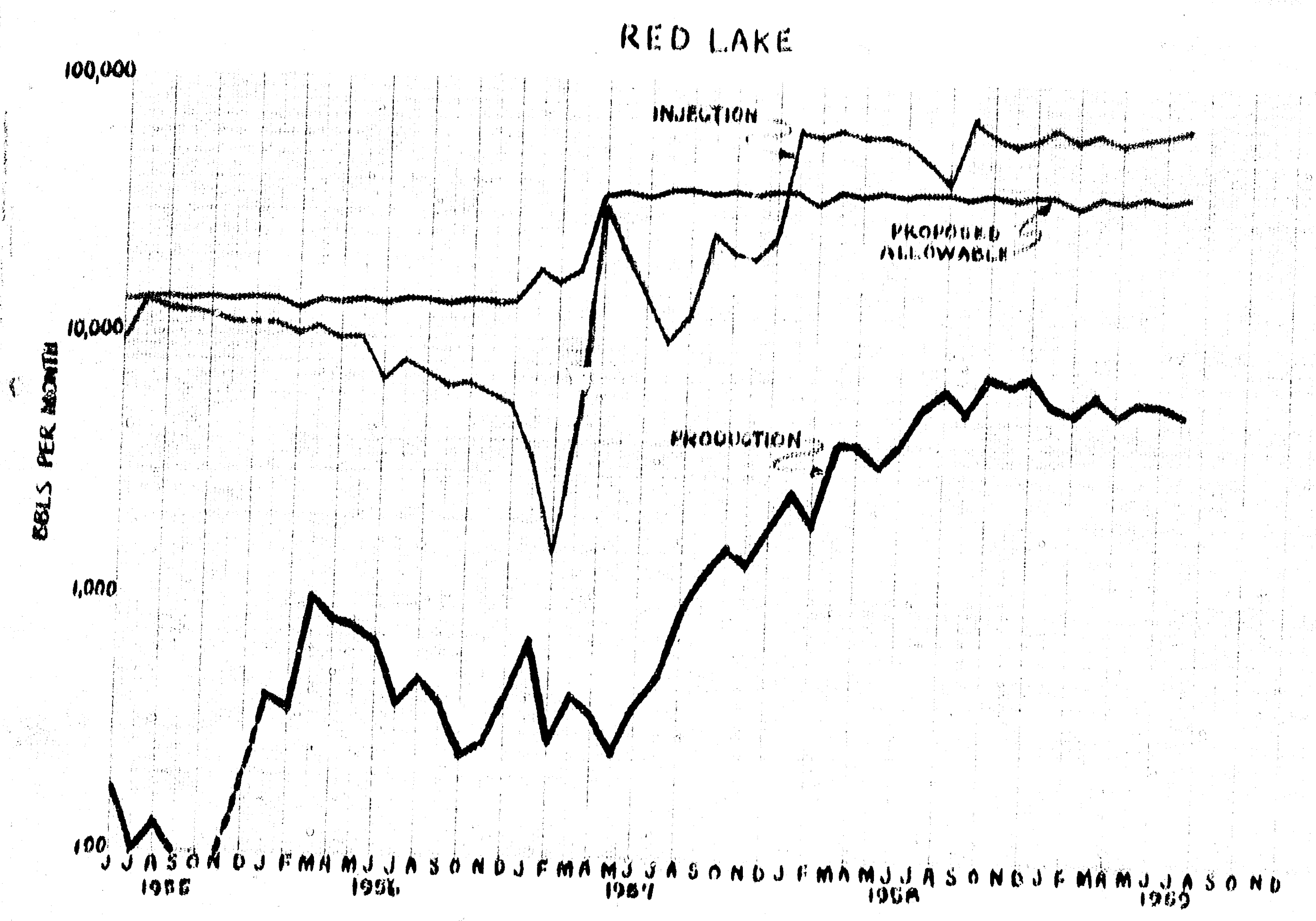
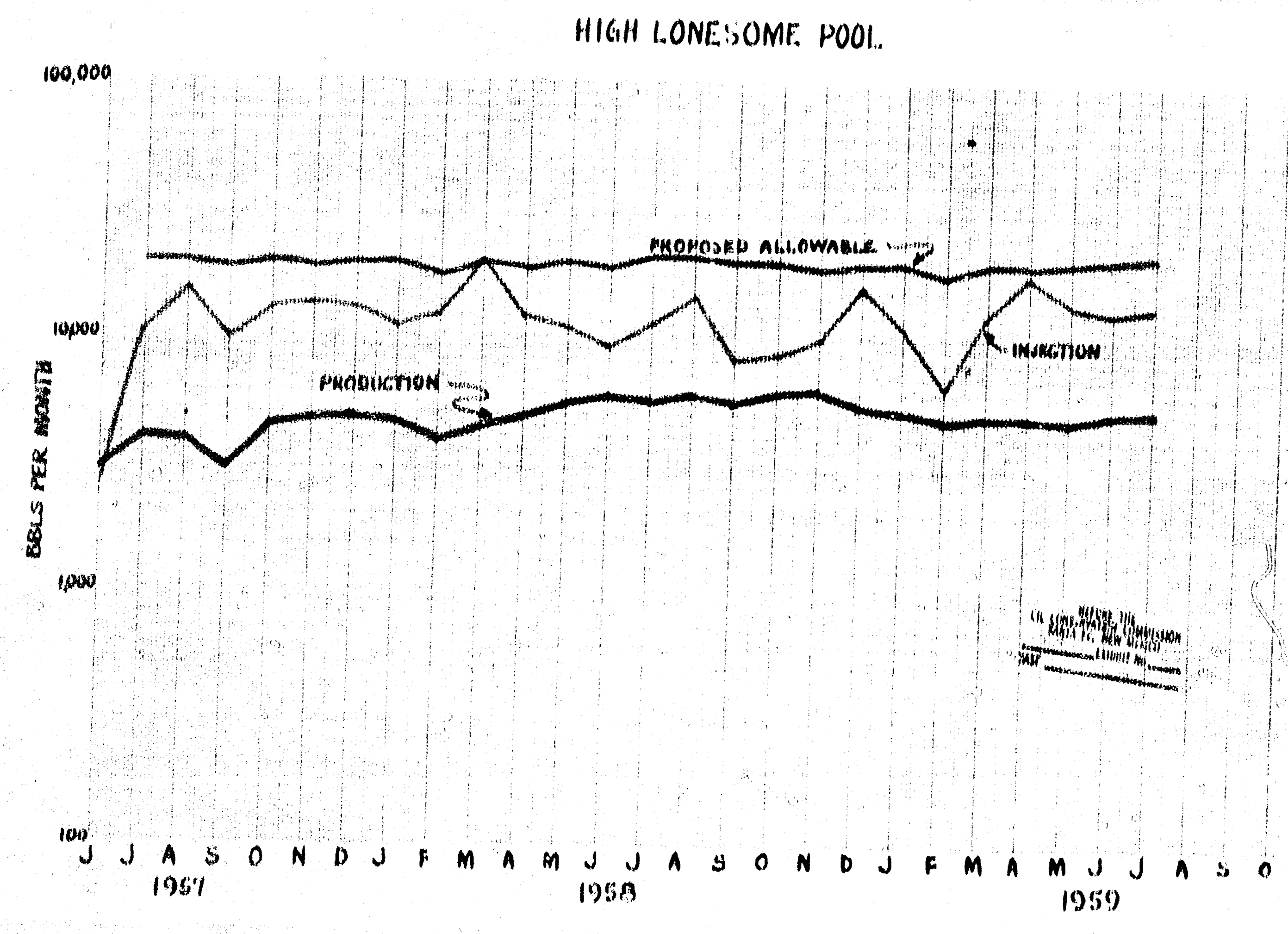
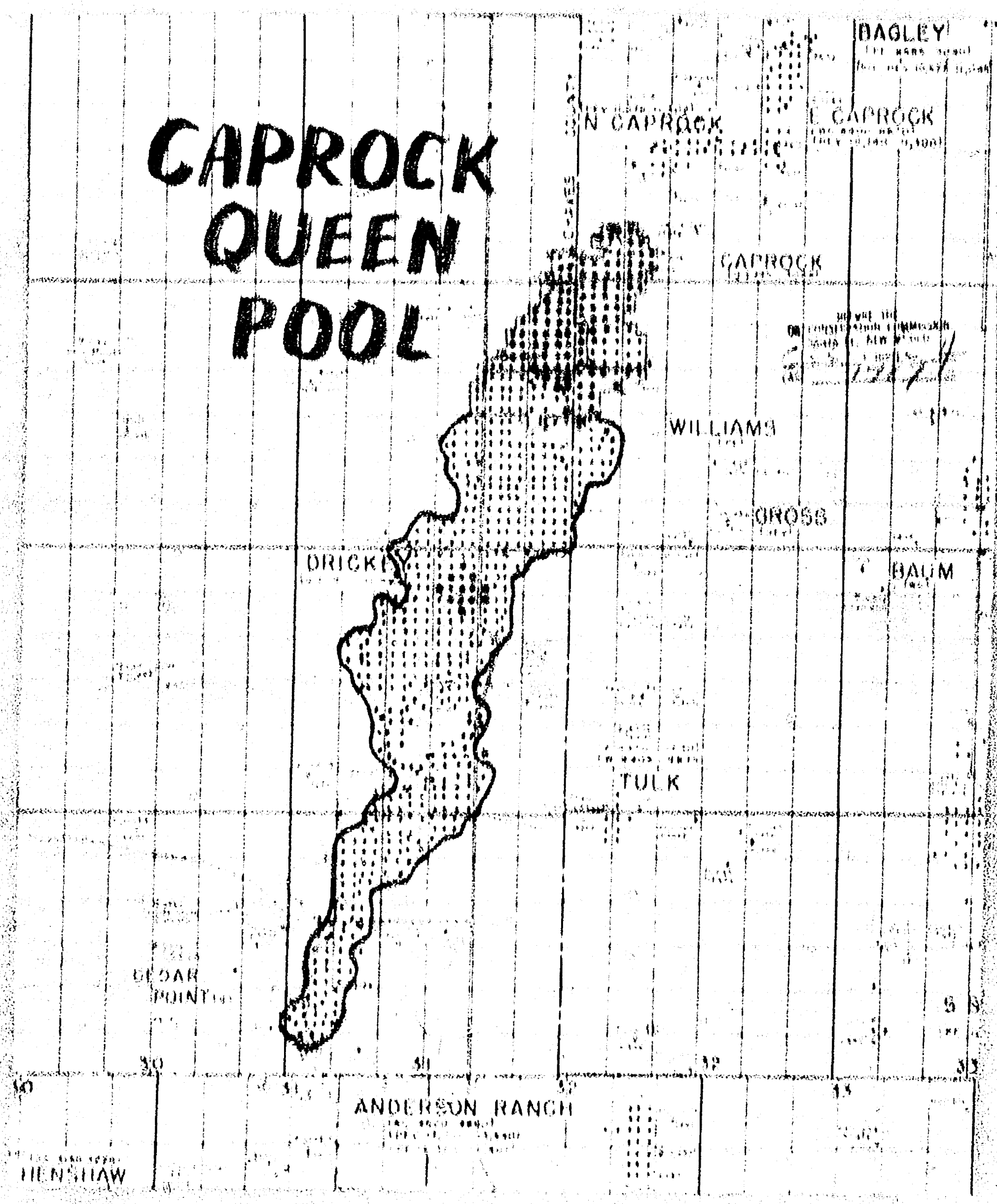
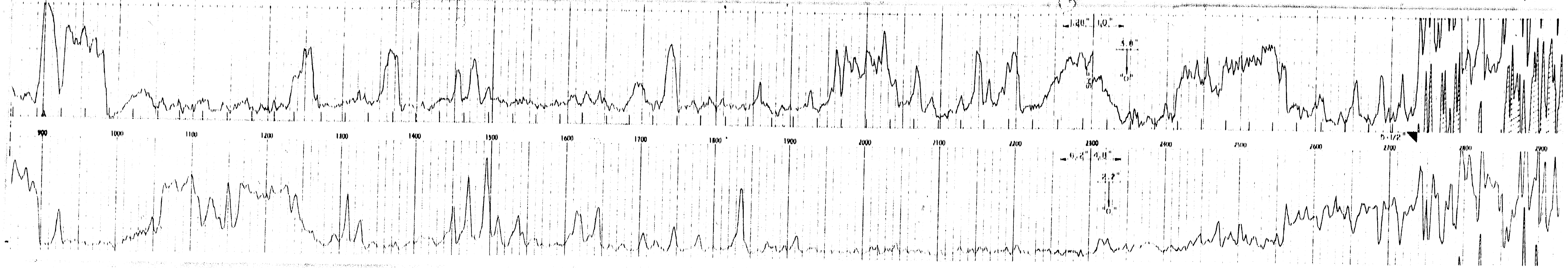
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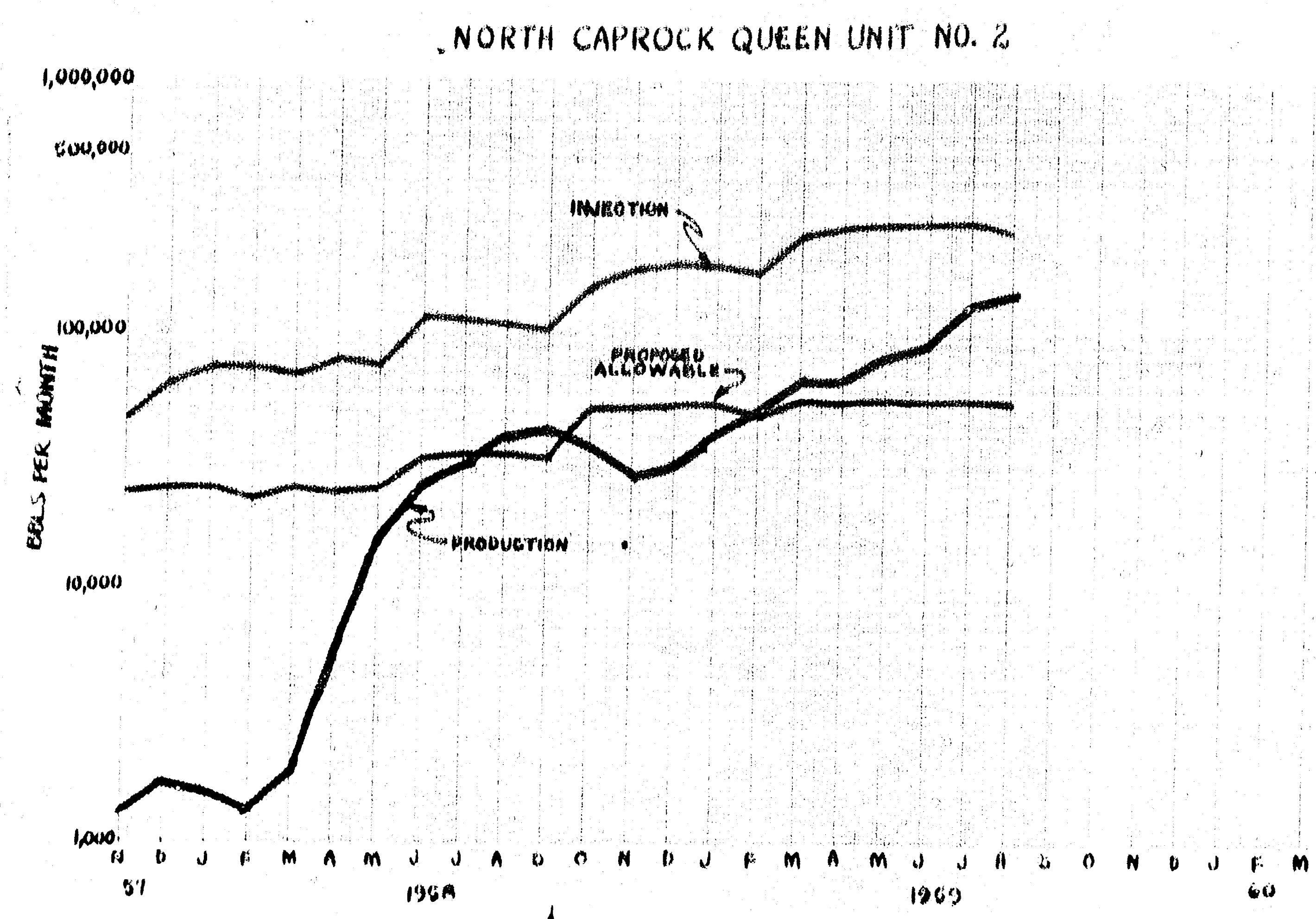
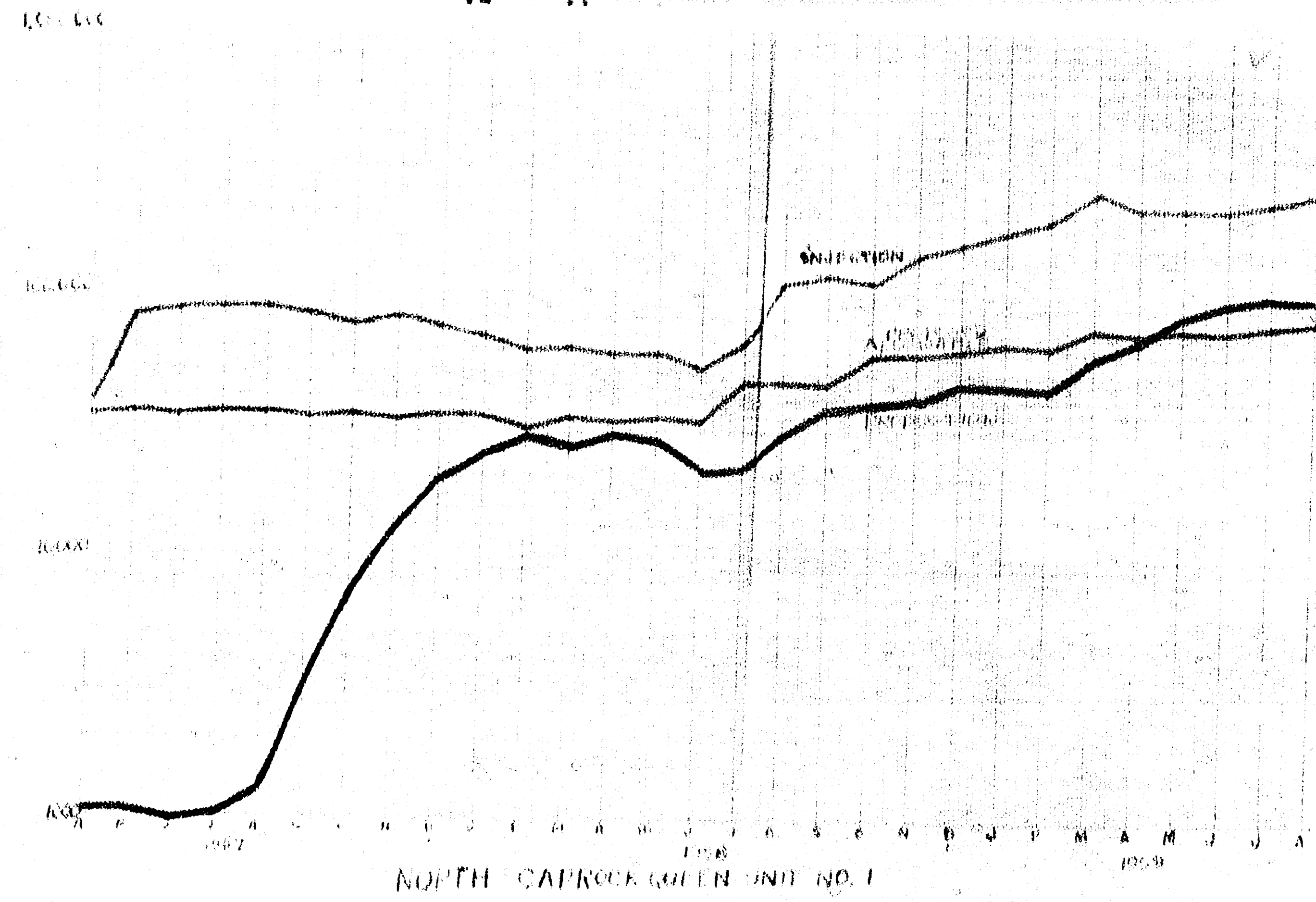
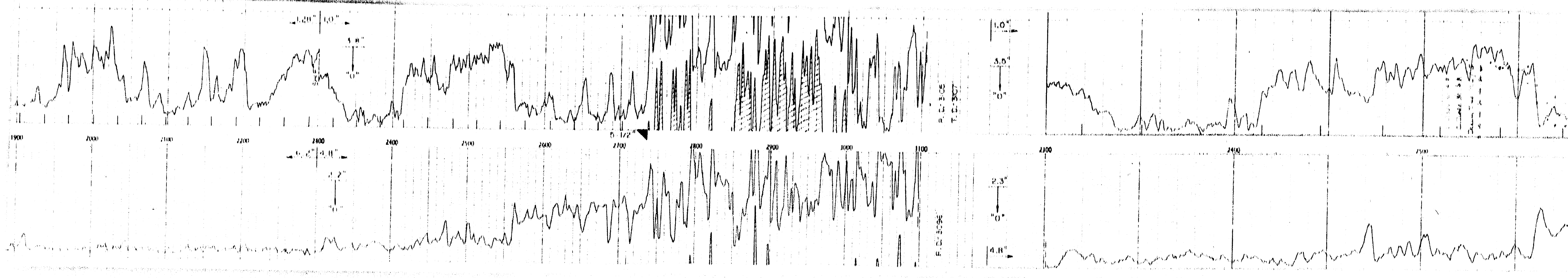
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AT 10% WATER INJECTION PER YEAR
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CONSTANT RATE OF DEVELOPMENT AT
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5 YEARS TO REACH 10% WATER INJECTION
STARTING JANUARY 1, 1948



		RADIOACTIVITY LOG		WELUX JET SERVICES, INC.	
		COMPANY: WELUX JET SERVICES, INC. ADDRESS: 1001 PULASKI AVE. ST. LOUIS, MO. 63103 PHONE: 434-1234			
DATE: 10/15/68 TIME: 1400 LOCATION: ST. LOUIS, MO. OPERATOR: J. SMITH INSTRUMENT: GM-150 SCALE: CPM CORRECTION: 0 WIND: 0 TEMPERATURE: 60 HUMIDITY: 50 PRESSURE: 30 ALTITUDE: 400 SURFACE: ASPH SOIL: CLAY VEGETATION: NONE COMMENTS: NO DETECTABLE RADIOACTIVITY		DATE: 10/15/68 TIME: 1400 LOCATION: ST. LOUIS, MO. OPERATOR: J. SMITH INSTRUMENT: GM-150 SCALE: CPM CORRECTION: 0 WIND: 0 TEMPERATURE: 60 HUMIDITY: 50 PRESSURE: 30 ALTITUDE: 400 SURFACE: ASPH SOIL: CLAY VEGETATION: NONE COMMENTS: NO DETECTABLE RADIOACTIVITY		DATE: 10/15/68 TIME: 1400 LOCATION: ST. LOUIS, MO. OPERATOR: J. SMITH INSTRUMENT: GM-150 SCALE: CPM CORRECTION: 0 WIND: 0 TEMPERATURE: 60 HUMIDITY: 50 PRESSURE: 30 ALTITUDE: 400 SURFACE: ASPH SOIL: CLAY VEGETATION: NONE COMMENTS: NO DETECTABLE RADIOACTIVITY	
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NEW MEXICO OIL CONSERVATION COMMISSION
PRODUCTION AND INJECTION DATA FOR CRUDE OIL, NOVEMBER, 1960

SOUTHWEST NEW MEXICO		
Continental	12,000	
Exxon	4,100	810
Phillips	2,812	1100
Union Pacific	11,140	2
Shell	22,000	2
Marathon	25,245	4,400
Phillips	800	
Phillips	32,200	3100
Phillips	50,555	
Phillips	30,000	
Phillips	12,000	
Phillips	1,000	
Phillips	3,750	2
Phillips	2,000	100
Phillips	200	20
Phillips	200	80
Total Southwest New Mexico	222,210	3300
NORTHEAST NEW MEXICO		
Exxon	8,000	000
Phillips	20,000	
Phillips	3,100	
Phillips	100	3
Total Northeast New Mexico	30,000	003
TOTAL NEW MEXICO	252,210	3303

NEW MEXICO OIL CONSERVATION COMMISSION
N. O. BOX 471
SANTA FE, NEW MEXICO

MEMORANDUM
TO: ALL OPERATORS
FROM: A. L. PORTER, Jr., Secretary Director
SUBJECT: PROPOSED WATER FLOOD RULES

Attached hereto is a proposed revision of Rule 701 of the Conservation Rules and Regulations. This revision will be considered by the Commission at the October 14th hearing. Also 1960, New Mexico.

You will note that this proposed Rule 701 is much more comprehensive than the present existing Rule 701 and includes, among other things, provisions for administrative expansion of water flood projects and the assignment of project allocations to water flood projects.

It should be explained that the "Area Allowable Factor" for Southwest New Mexico is based upon the average annual unit allowable during the last ten years. The Area Allowable Factor for Northeast New Mexico is based upon average allocations for that area since water flood projects have been available.

It is proposed that these rules will apply only to new floods and not to existing floods. The suggestions as to the operation of buffer zones between new floods and old floods, as well as any other necessary details of proposed rules which you wish to submit, will be welcomed.

September 25, 1960

PROPOSED RULE

- RULE 701. INJECTION OF FLUIDS INTO RESERVOIR**
- A. Purpose for Injection Required**
- The injection of gas, liquefied petroleum gas, air, water, or any other medium into any reservoir for the purpose of maintaining (conserving) pressure or for the purpose of secondary recovery or the injection of water into any formation for the purpose of water disposal shall be permitted only by order of the Commission after notice and hearing, unless otherwise provided herein.
- B. Method of Making Application**
- Application for hearing to obtain authority for the injection of gas, liquefied petroleum gas, air, water, or any other medium into any formation for any reason shall include the following:
1. A plat showing the location of the proposed injection well(s) and the location of all other wells within a radius of two miles of said proposed injection well(s), and the formation from which said wells are producing or have produced. The plat shall also indicate the location, if any, of any other well, within said two-mile radius, the log of the proposed injection well(s) if same is available.
 2. A description of the proposed injection well(s) casing program.
 3. Such other pertinent information as the name and depth of the zone or formation into which injection will be made, the kind of fluid to be injected, the anticipated amount to be injected, and the source of said injection fluid.

factor (from the 40-acre proportional factor for the pool). The allowable assigned to any water flood project area in which there are 40-acre tracts containing more than one well shall be increased by an amount of oil equal to 0.333 (one the Area Allowable Factor for each such additional well on a 40-acre tract, provided however, that the [allowable] allowable for any such 40-acre tract shall not exceed the Area Allowable Factor.

The project area allowable may be produced from any well or wells in the project area in any proportion.

Nothing herein contained shall be construed as prohibiting the assignment of spatial allocation to wells in buffer zones, after notice and hearing.

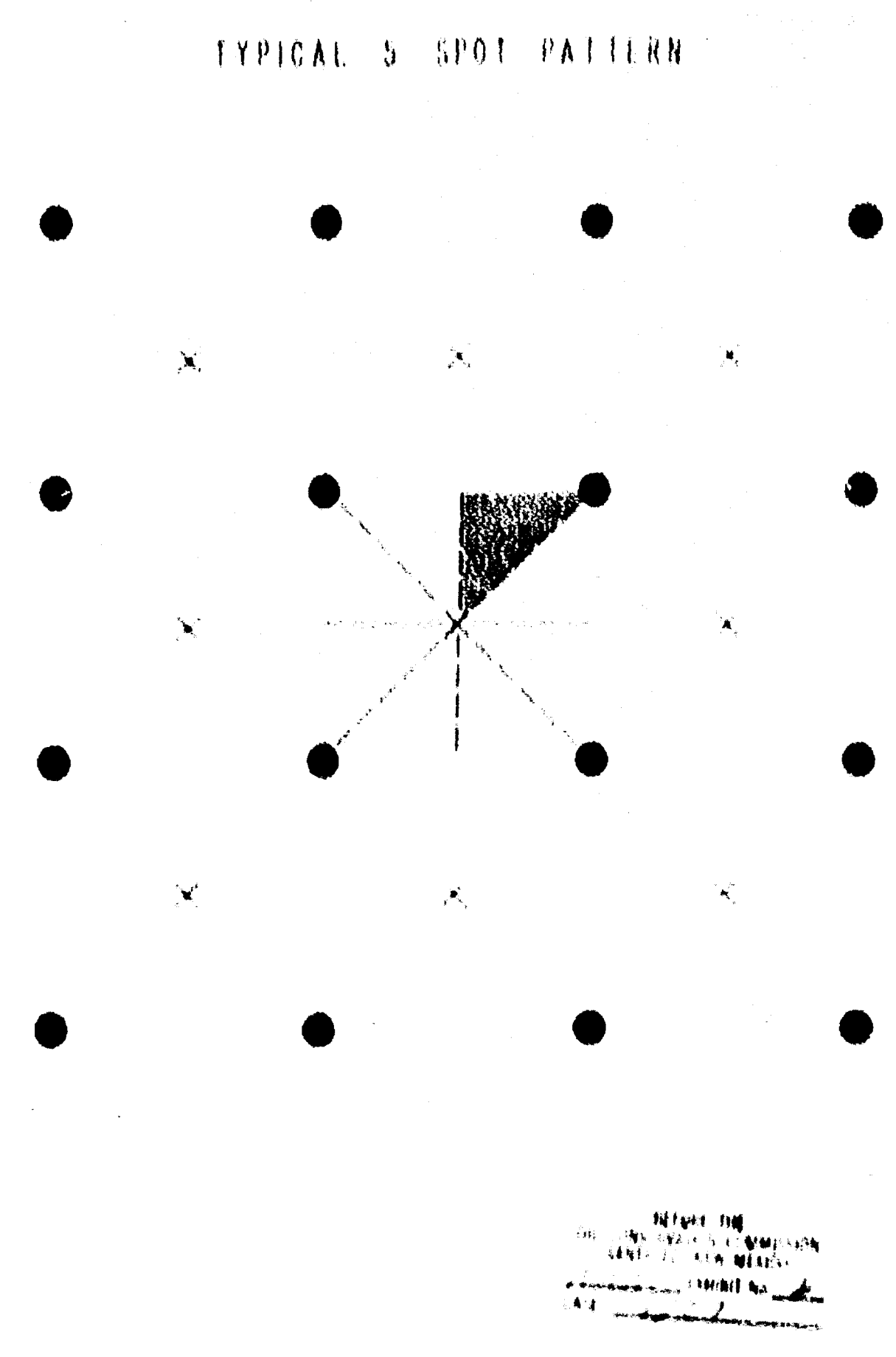
4. The Area Allowable Factor for the counties of Lea, Bddy, Chavez, and Sandoval shall be 40. The Area Allowable Factor for the counties of San Juan, Rio Arriba, Sandoval, and McKinley shall be 30.

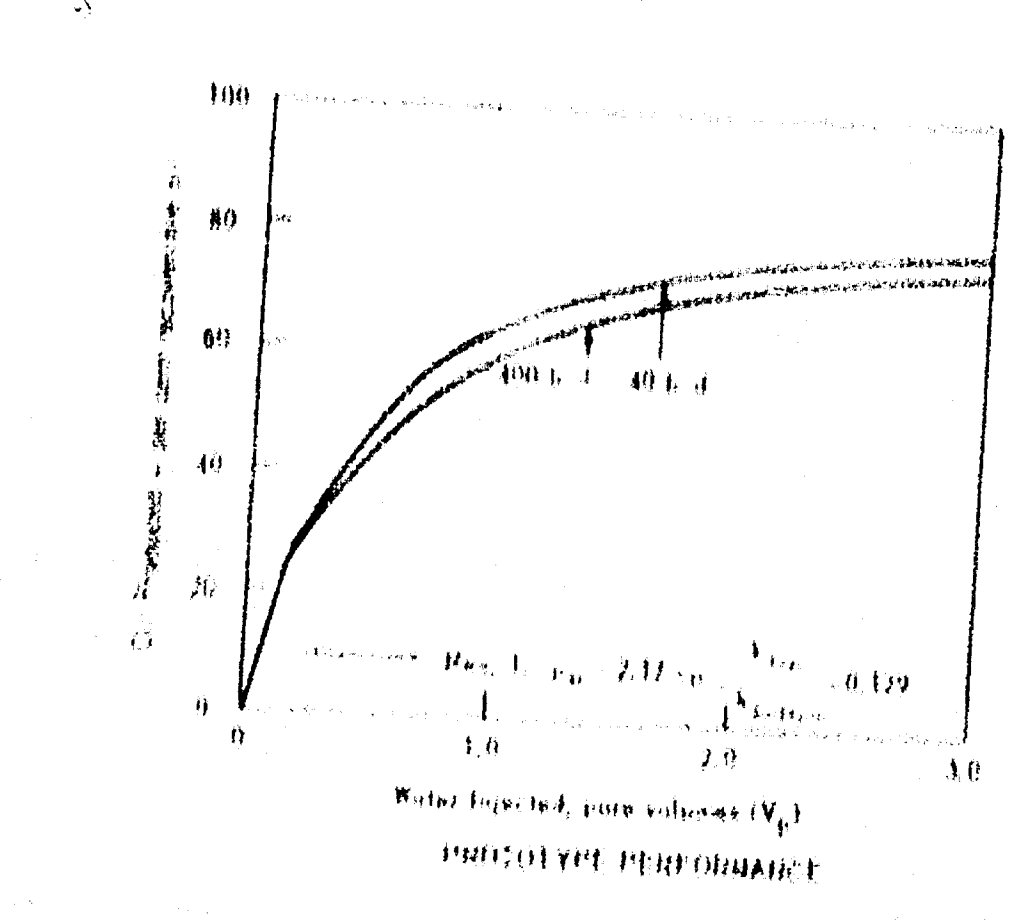
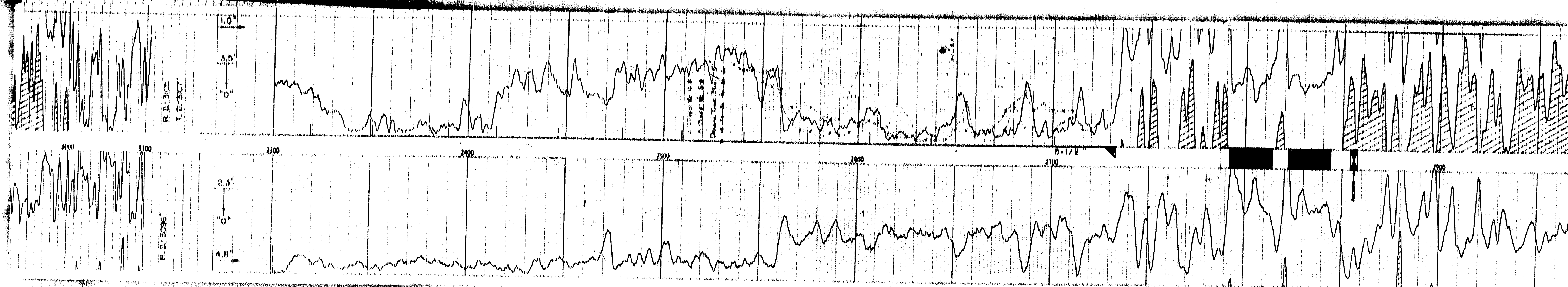
5. Water flood projects shall be expanded and additional wells placed on injection only upon authority from the Commission after notice and hearing or by administrative procedure in accordance with the following:

In order for a well in a water flood project to be eligible for administrative approval for conversion to water injection, it must be established to the satisfaction of the Secretary, Director of the Commission that the proposed water injection well has experienced a substantial response to water injection or is directly affected by a producing well which has experienced

FIELD WATER FLOOD PROJECTS

Field Name	Range of Wells	Approximate Water Flooded
Water Flood Pattern	5,000	5,000
Acid Fracture	20-30,000	20
New Mexico Black Sand	4,500	10
Producers	14,111	20
Alachua, Pecos, and other	16,112	15,116
Alachua, Pecos, and other	20,000	20
Black Hills of Oklahoma	26,2	20
Black Hills of Oklahoma	3,150,000	0.20
Water Flooded	0.450-0.5	0.50
Oil Production	0.45-0.5	0.50-0.51
Water Flooded	25,15	25



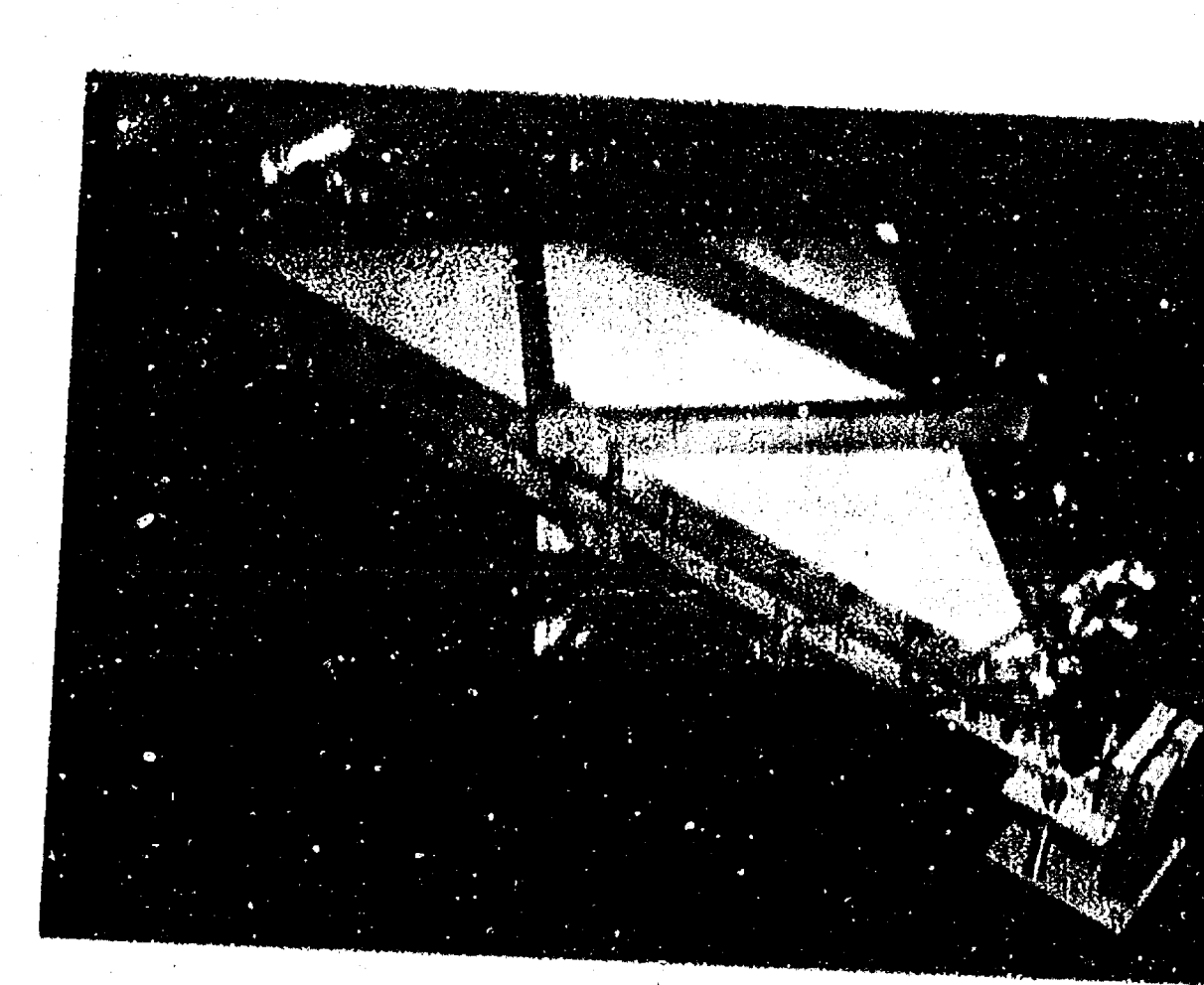


- C. Well Water Disposal Wells**
(This title remains the same in its entirety.)
- D. Pressure Maintenance Projects**
1. Pressure maintenance projects are defined as those projects in which fluids are injected into the producing horizon in an effort to build-up and/or maintain the reservoir pressure in an area which has not reached the "stripper" state of depletion.
 2. The project area and the allowable formula for pressure maintenance projects shall be fixed by the Commission on an individual basis after notice and hearing.
- E. Water Flood Projects**
1. Water flood projects are defined as those projects in which water is injected into a producing horizon to sufficient quantities and under sufficient pressure to stimulate the production of oil from other wells in the area, and shall be limited to those areas in which the wells have reached an advanced state of depletion and are regarded as what is commonly referred to as "stripper" wells.
 2. The project area of a water flood project shall comprise the 40-acre tracts upon which injection wells are located plus all 40-acre tracts which directly or diagonally offset the injection tracts and have producing wells completed on them.
 3. The maximum allowable assigned to any water flood project area shall be determined by multiplying the number of 40-acre tracts in the project area times the Area Allowable

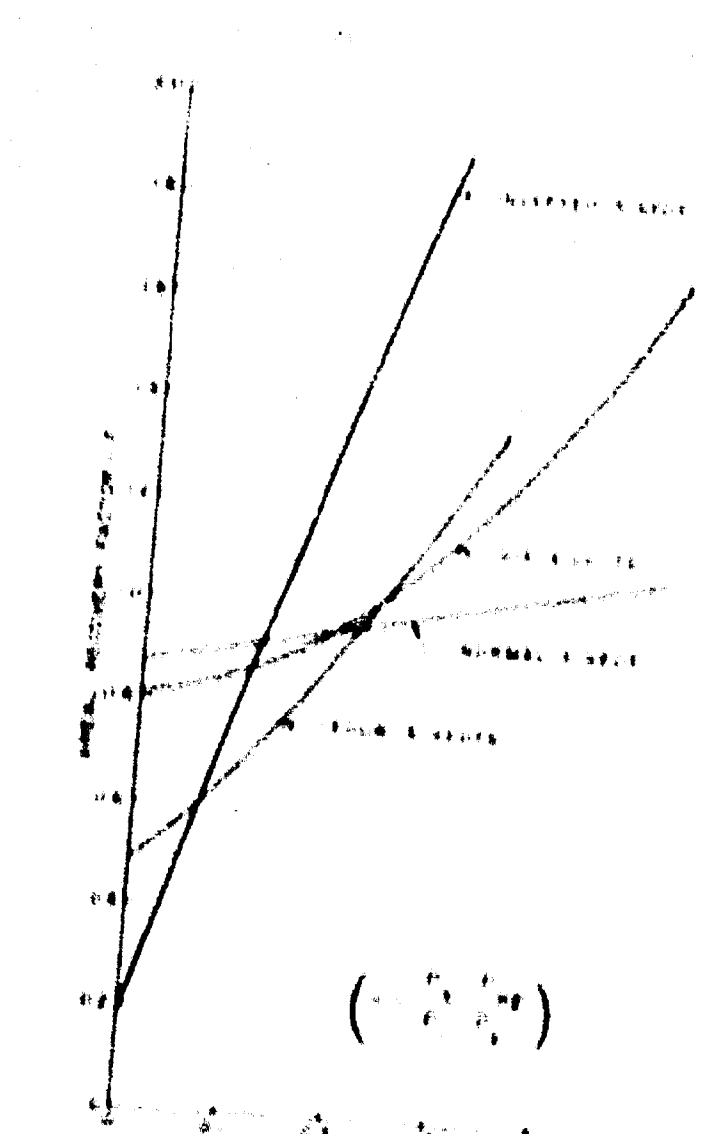
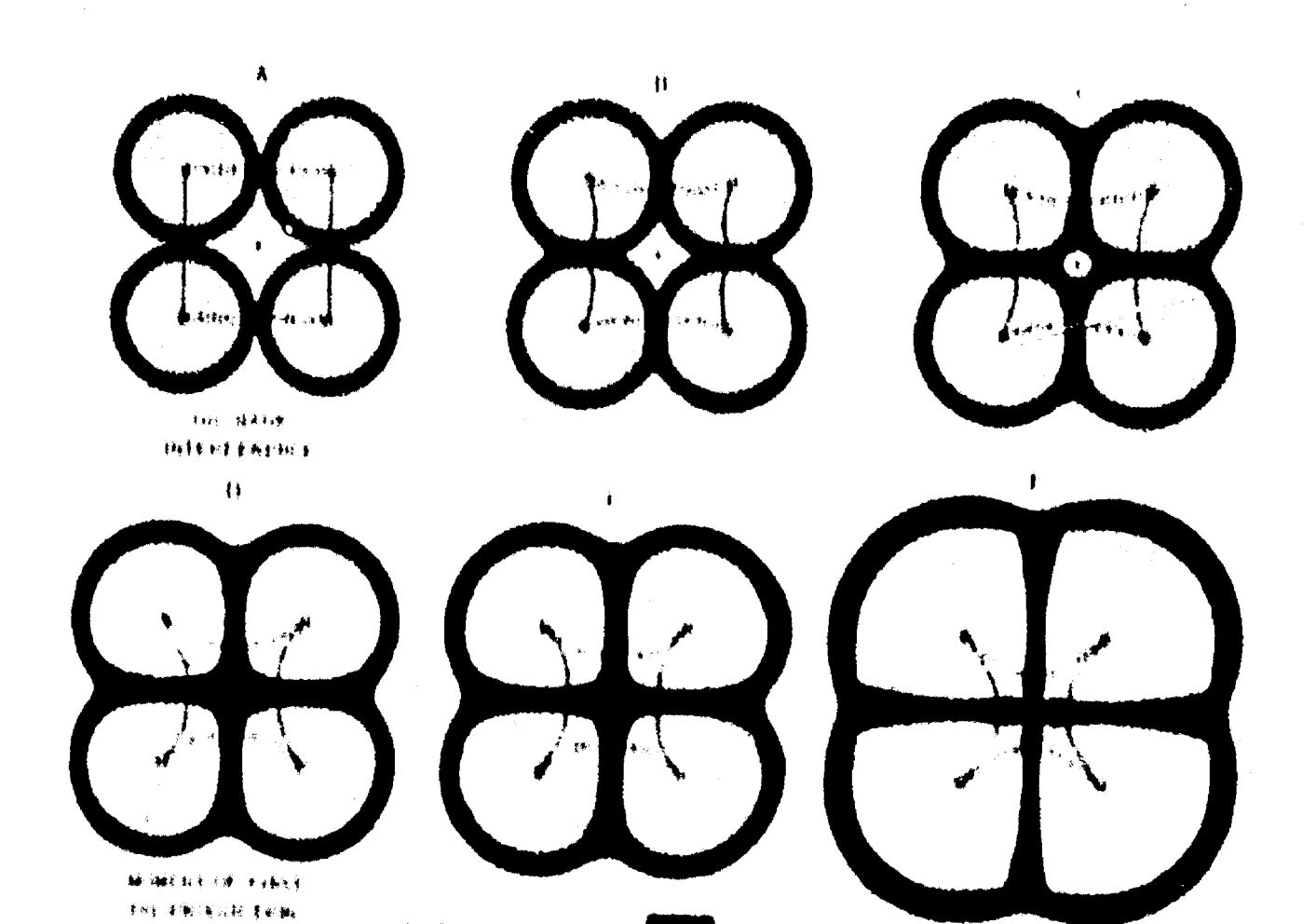
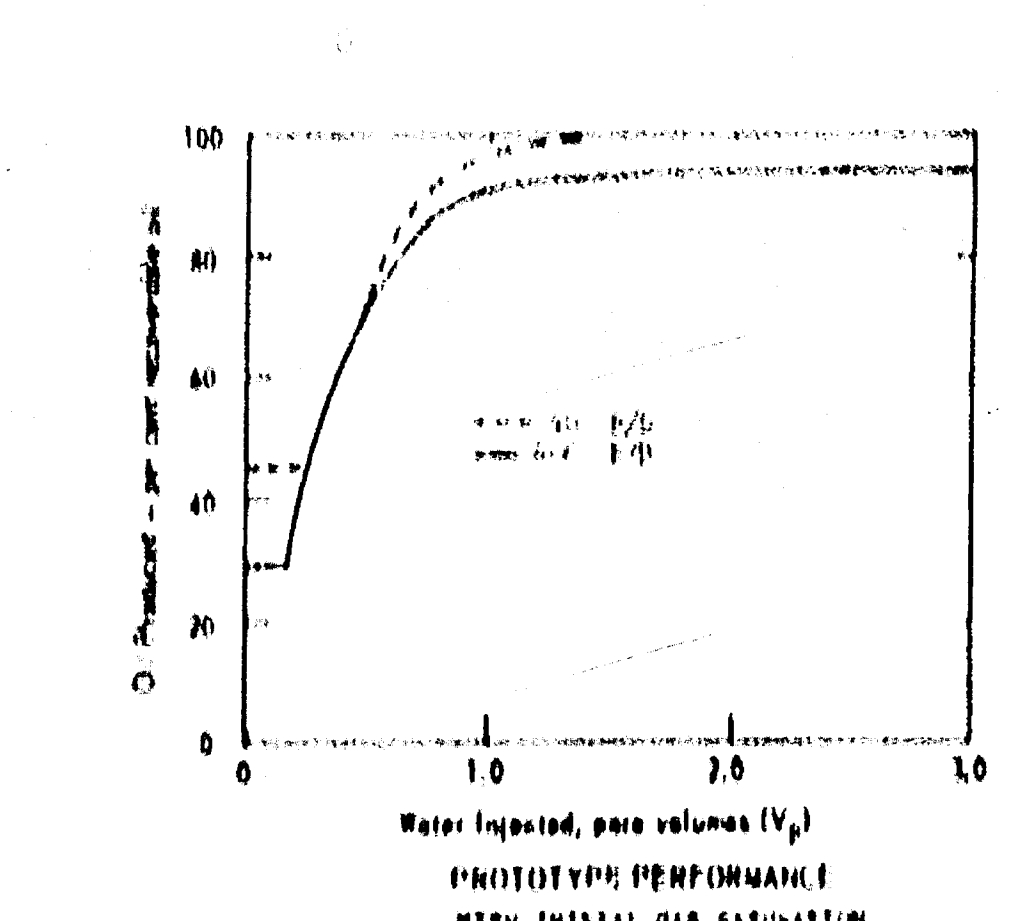
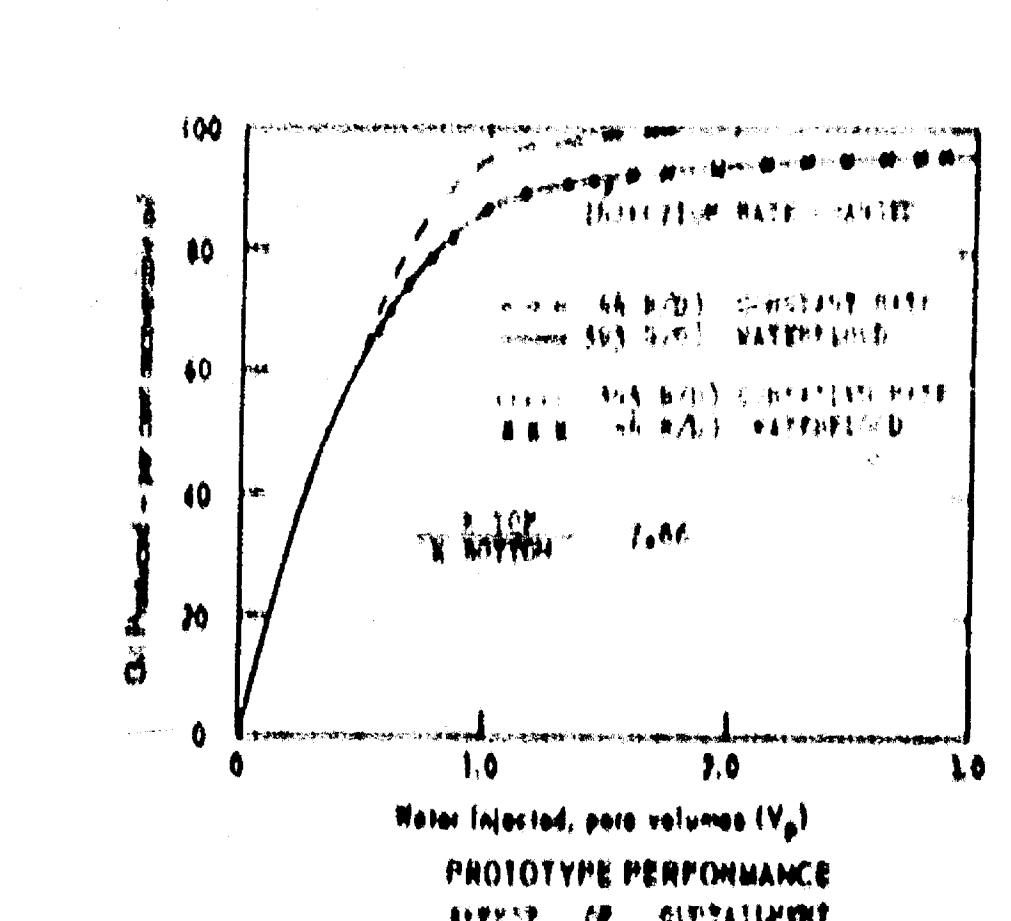
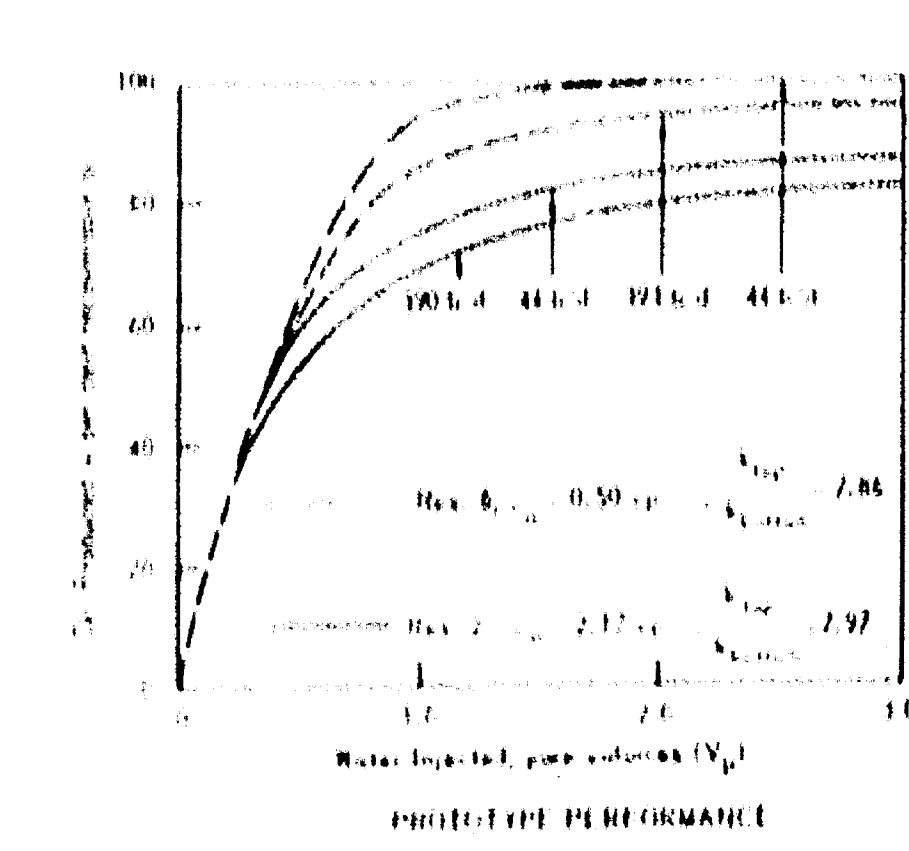
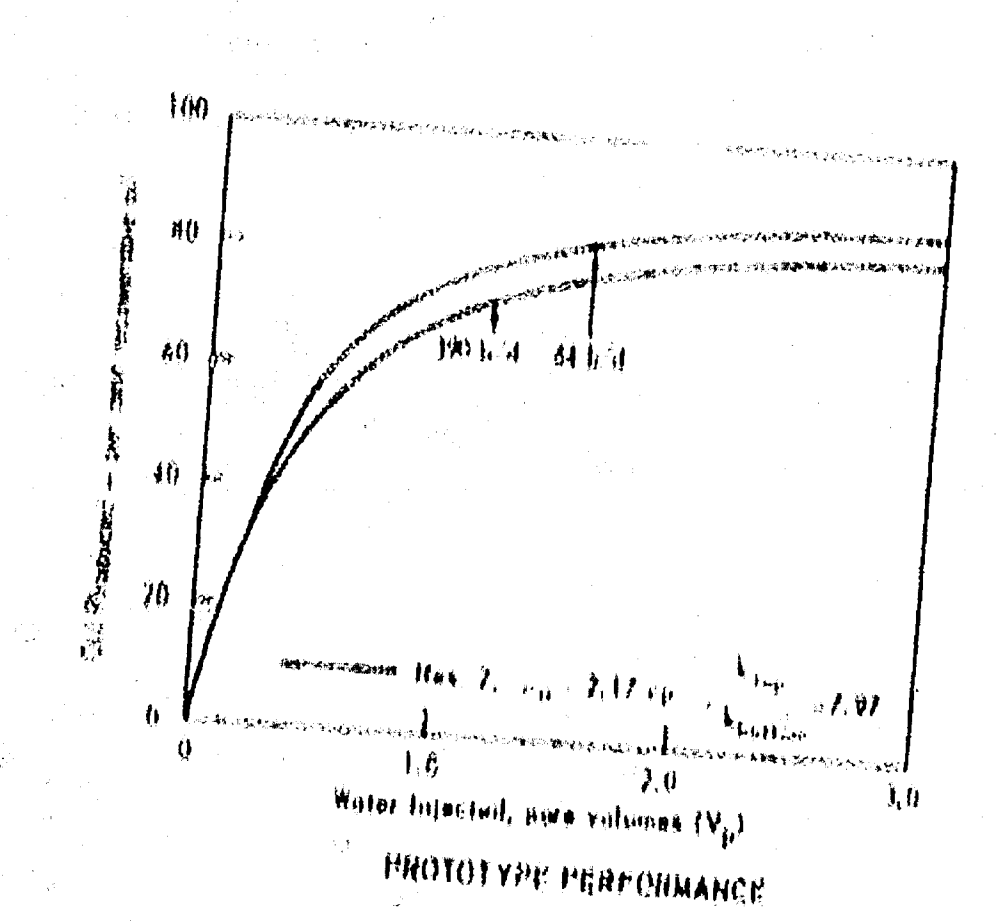
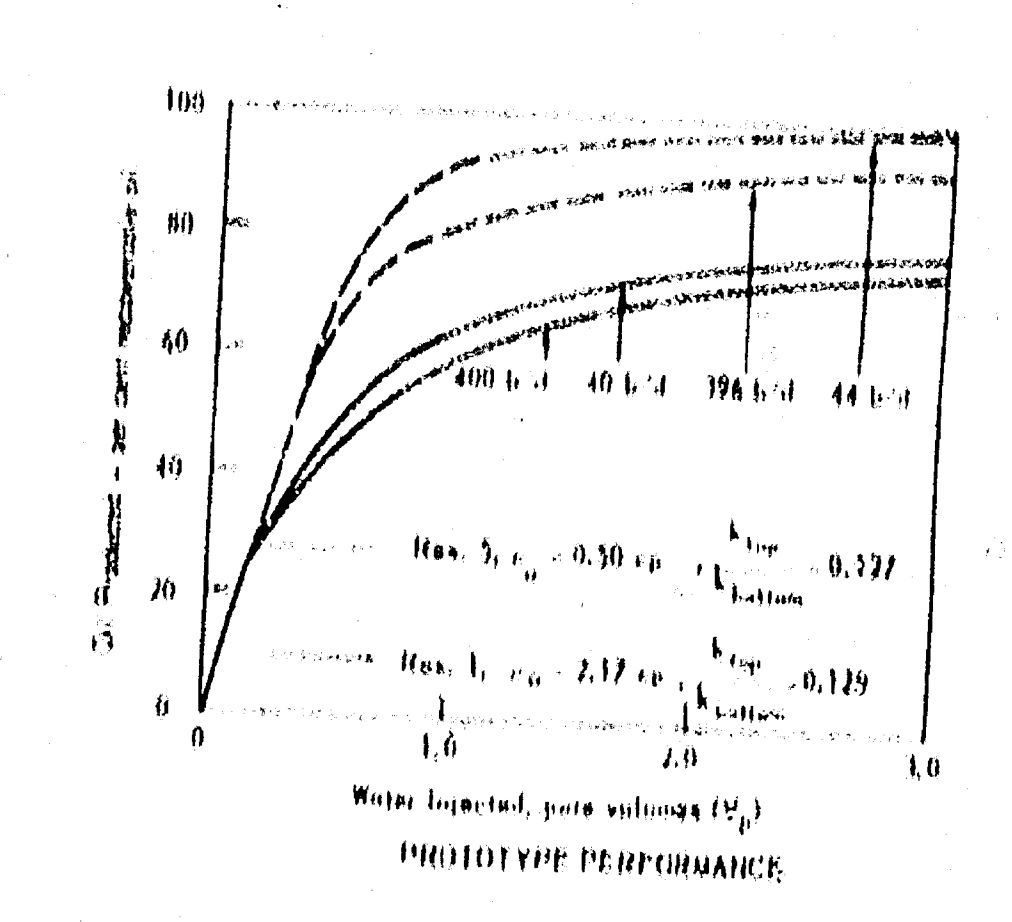
such response, and that the proposed injection well is located on a water injection pattern which will result in a thorough and efficient sweep of oil by the water flood.

To obtain administrative approval for the conversion of any well to water injection, applicant shall submit to the Commission in triplicate a request for such administrative approval, setting forth therein all the facts pertinent to the need for conversion of additional wells to water injection, and attaching thereto Commission Form C-110, showing production trends of the affected well or wells both before and after stimulation by water flood. Applicant shall also attach plans of the water flood project area and immediate surrounding area, indicating thereon the center of each lease and the location of all water injection wells and producing wells, and shall submit evidence that a copy of the application to convert additional wells to water injection has been sent to each operator offsetting the proposed injection well and to the State Engineer.

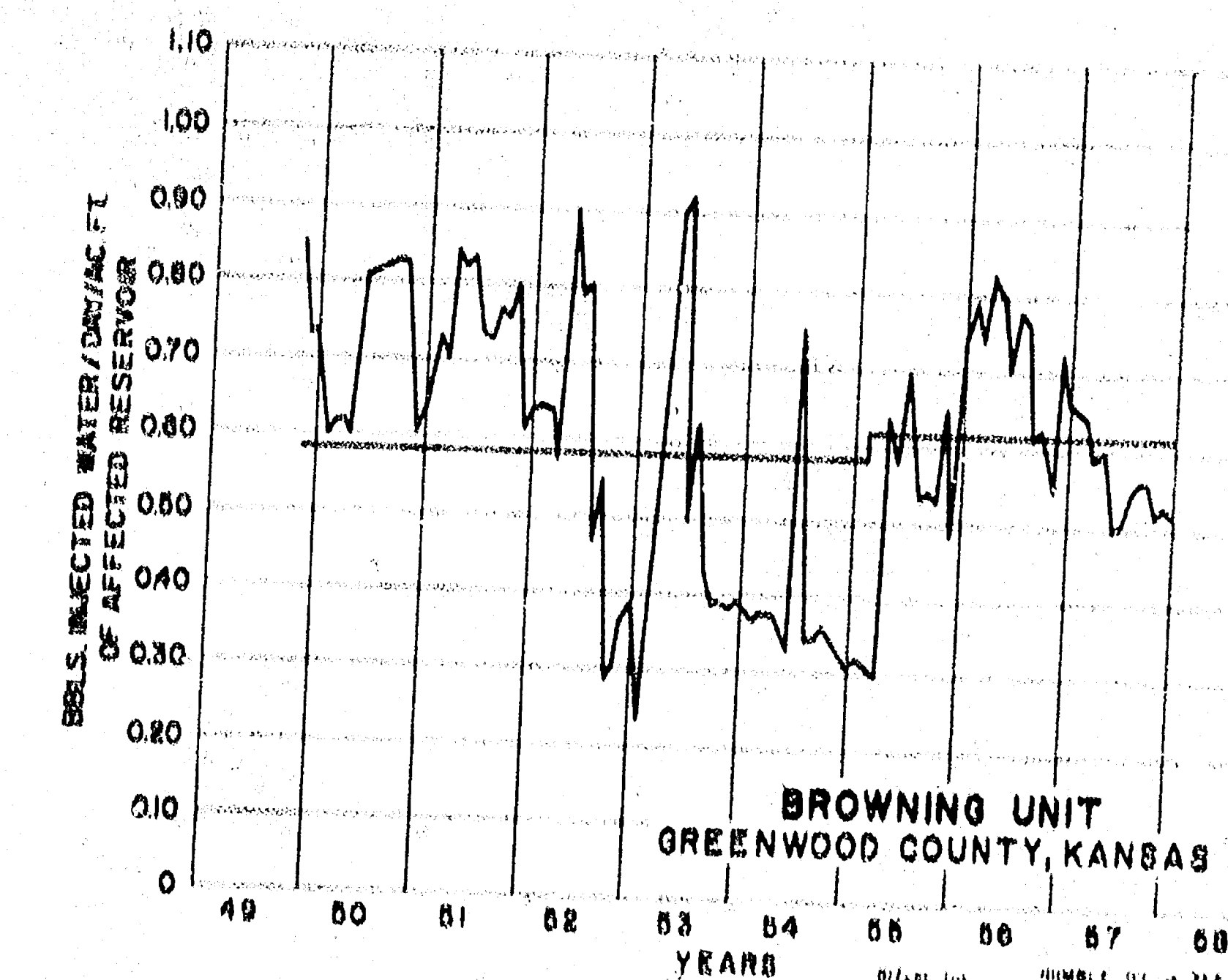
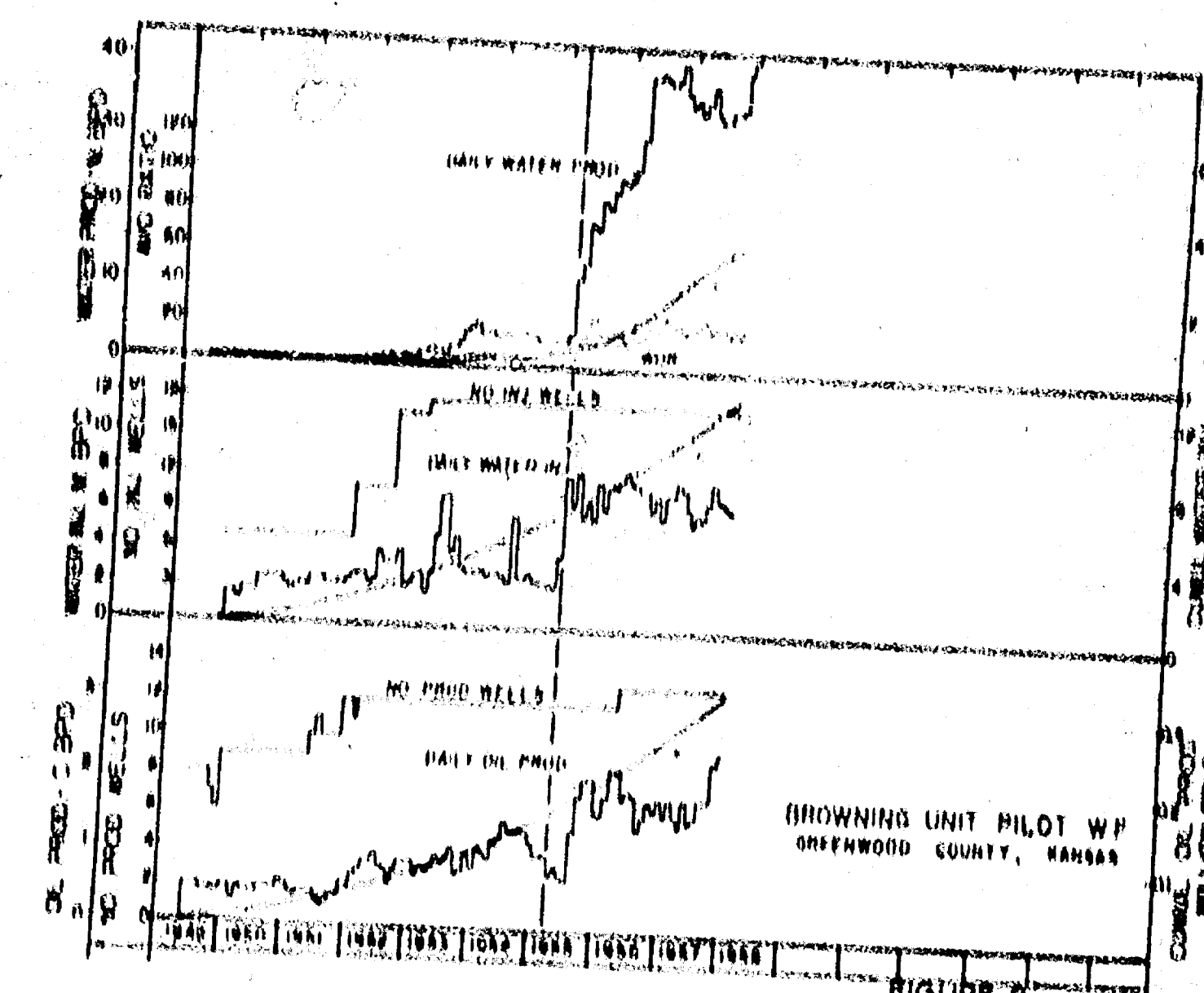
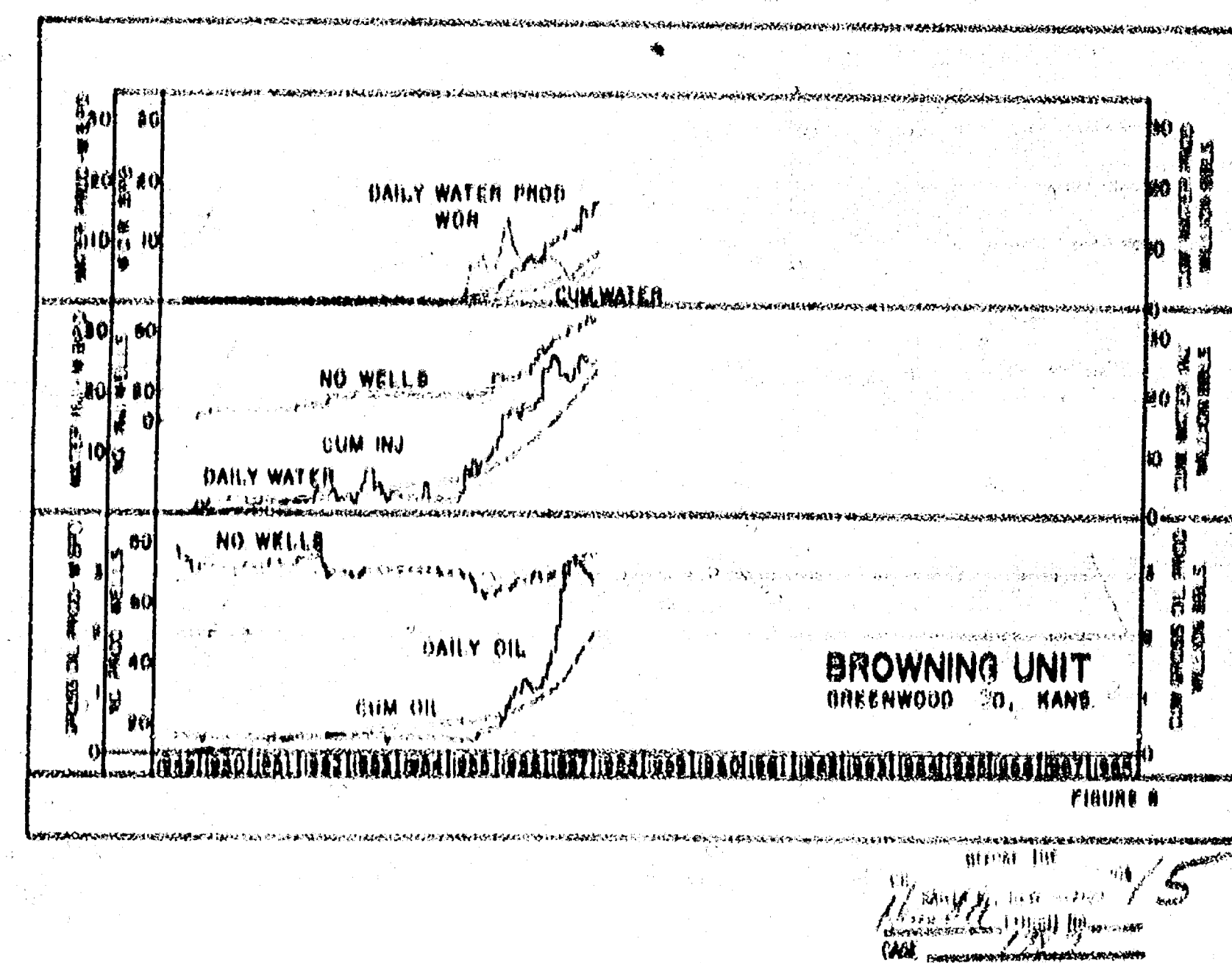
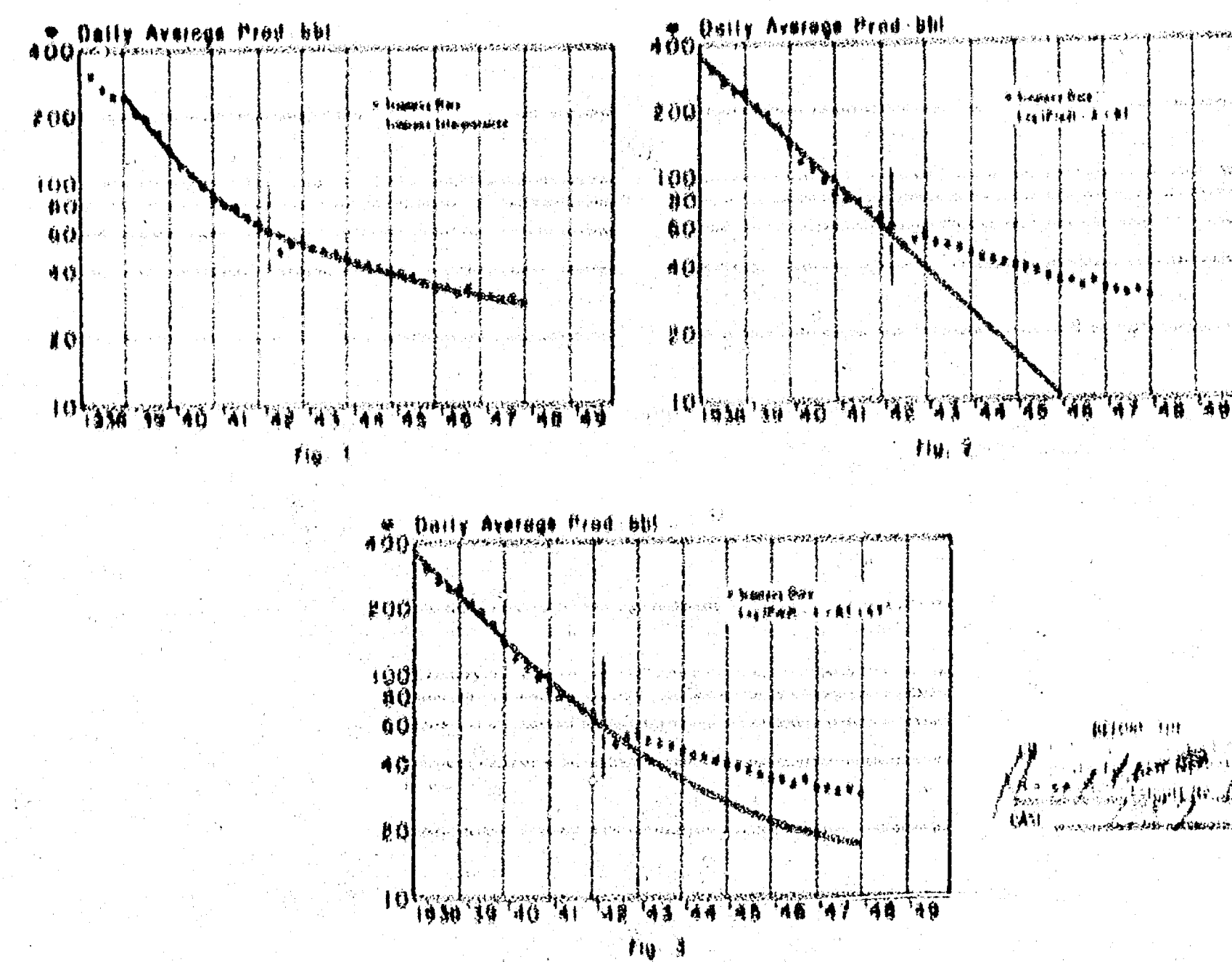
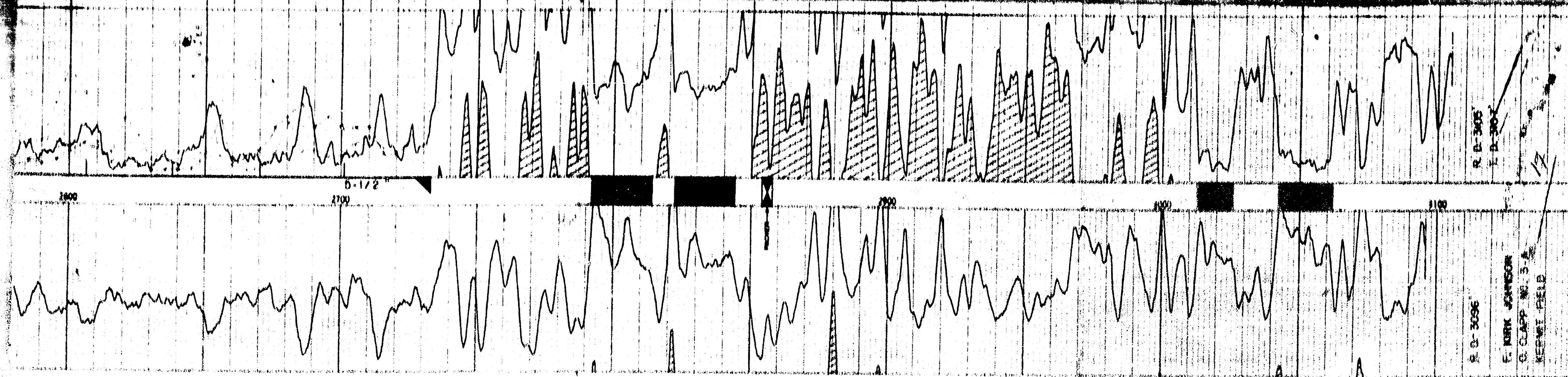
The Secretary-Director may, if in his opinion there is need for conversion of additional wells to water injection, authorize such conversion without notice and hearing, provided that no offset operator nor the State Engineer objects to the proposed conversion within fifteen (15) days. The Secretary-Director may grant immediate approval of the proposed conversion upon receipt of waivers of objection from all operators offsetting the proposed injection well and from the State Engineer.



STRATIFIED SPOT MODEL

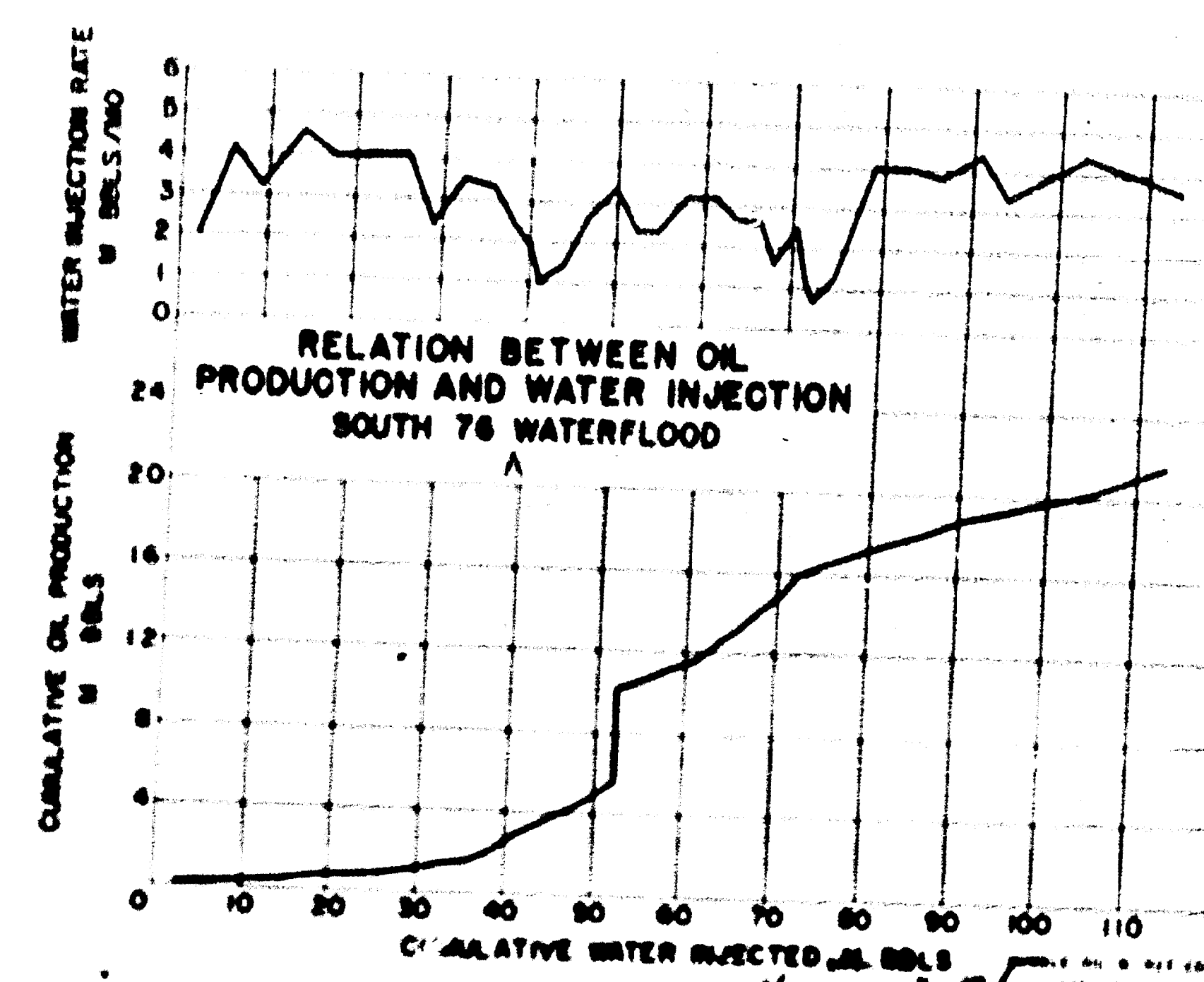
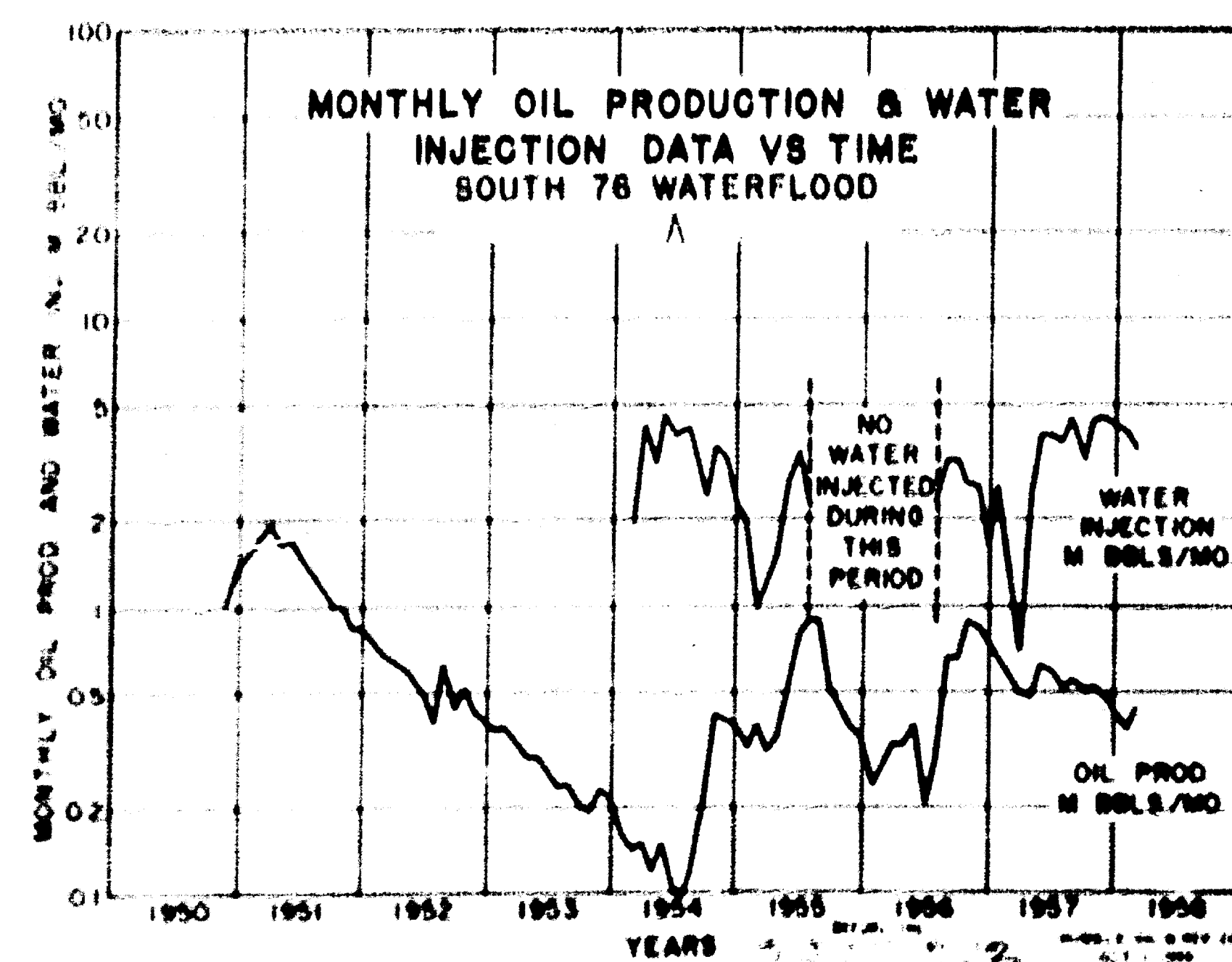


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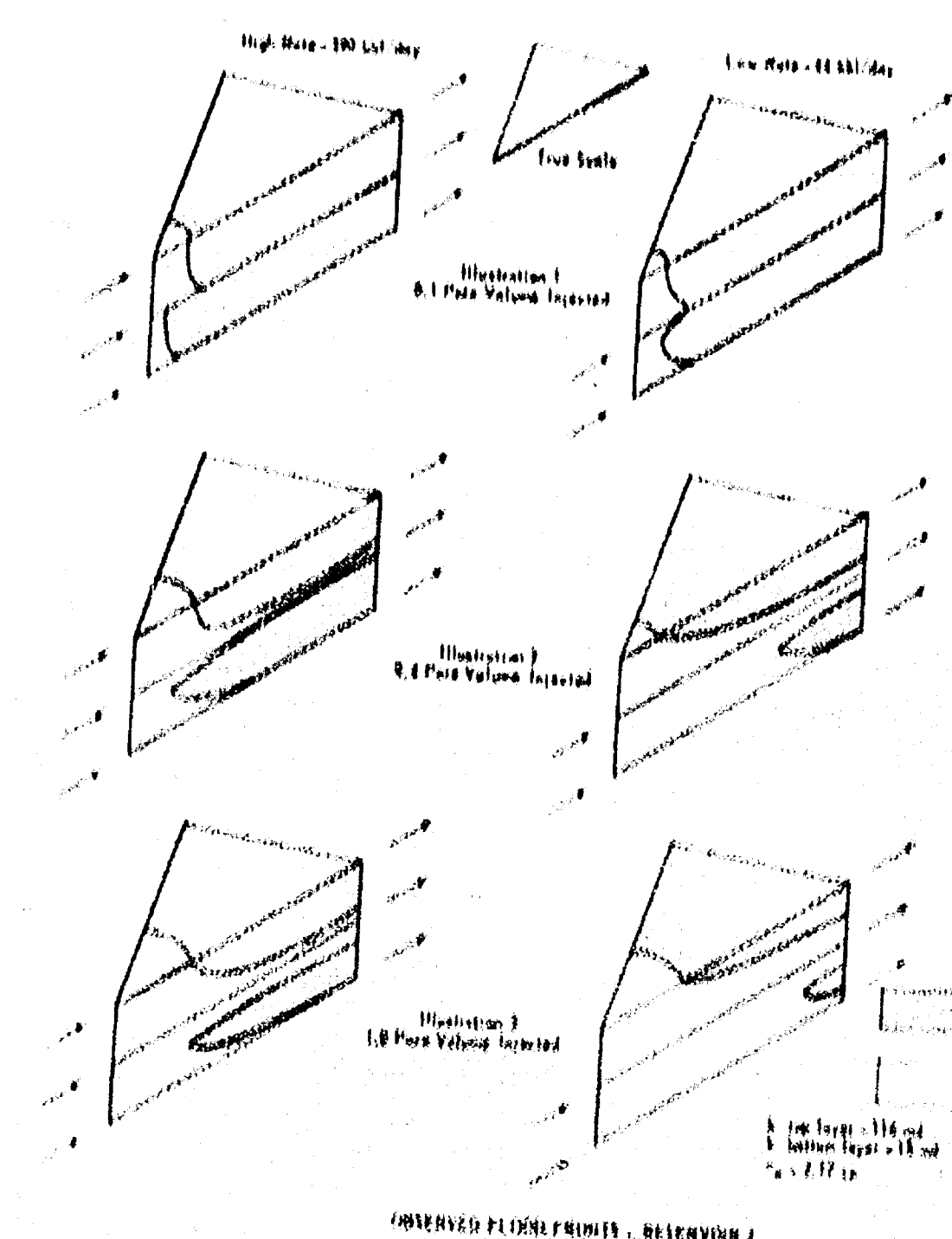


BROWNING UNIT
WATERFLOOD RECOVERY AS OF 1-1-58
 PILOT AREA 39.9 B/AC. FT.
 OUTSIDE PILOT AREA 31.9 B/AC. FT.

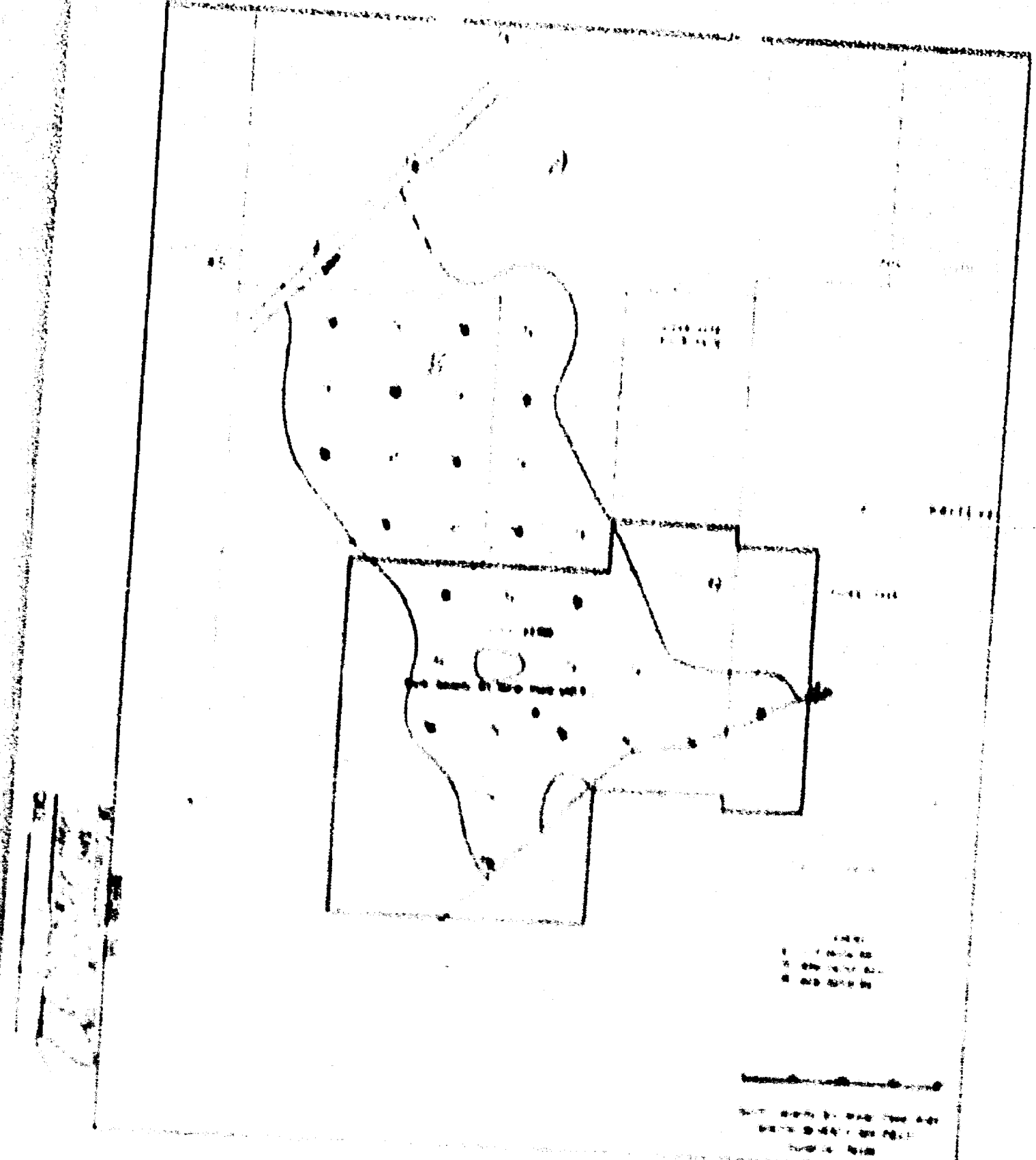
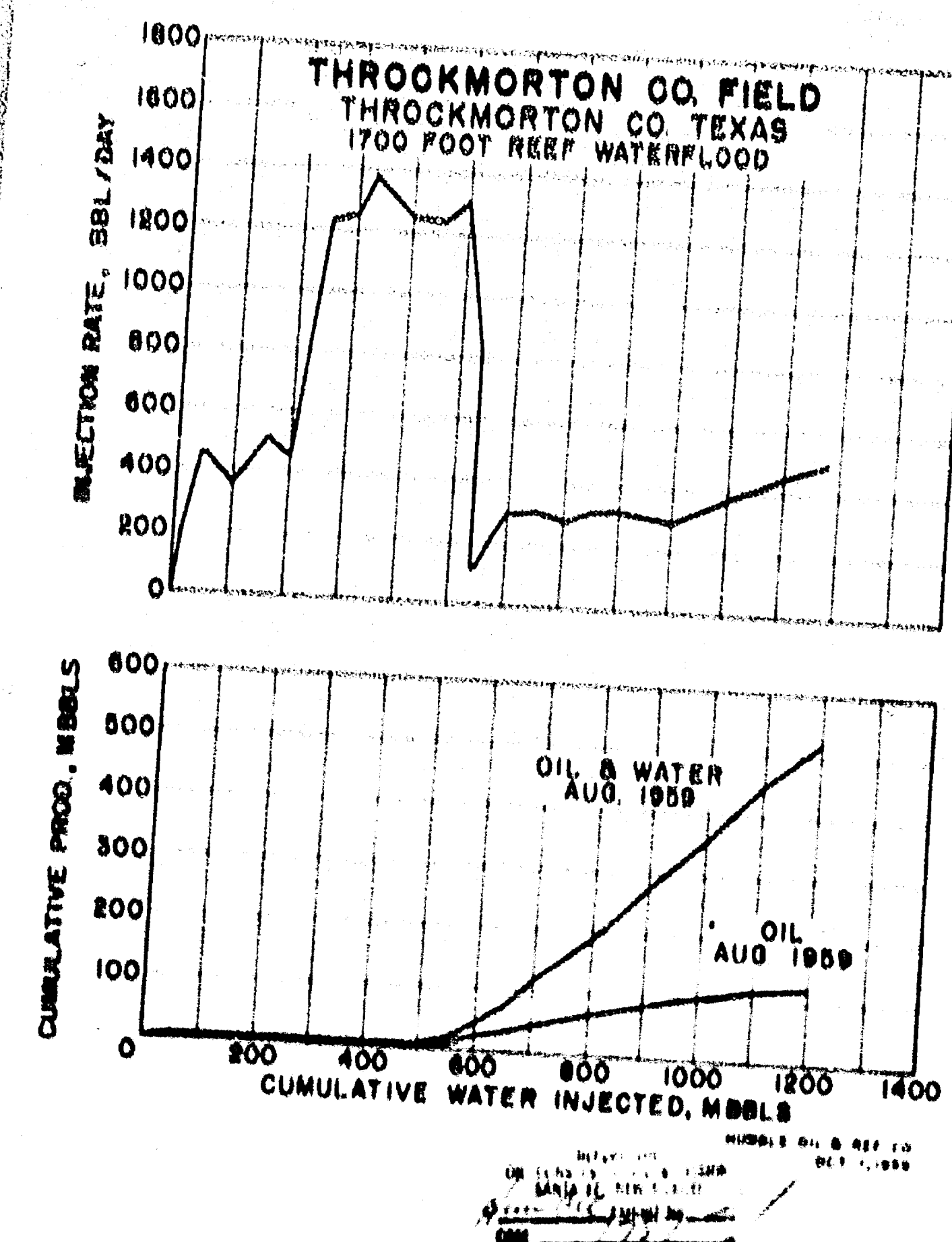
HUMBLE OIL & REF. CO.
 OCT. 2, 1958

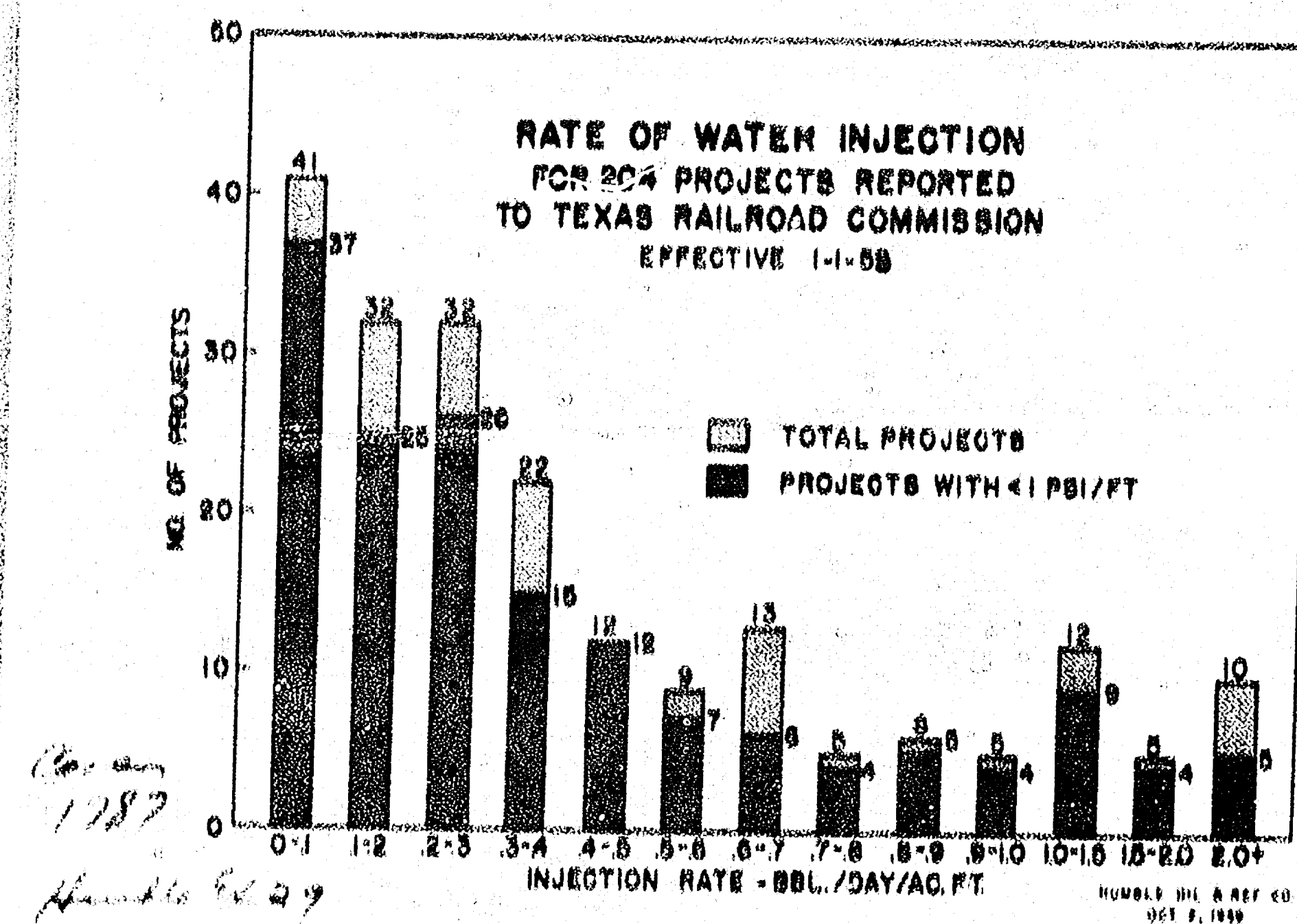
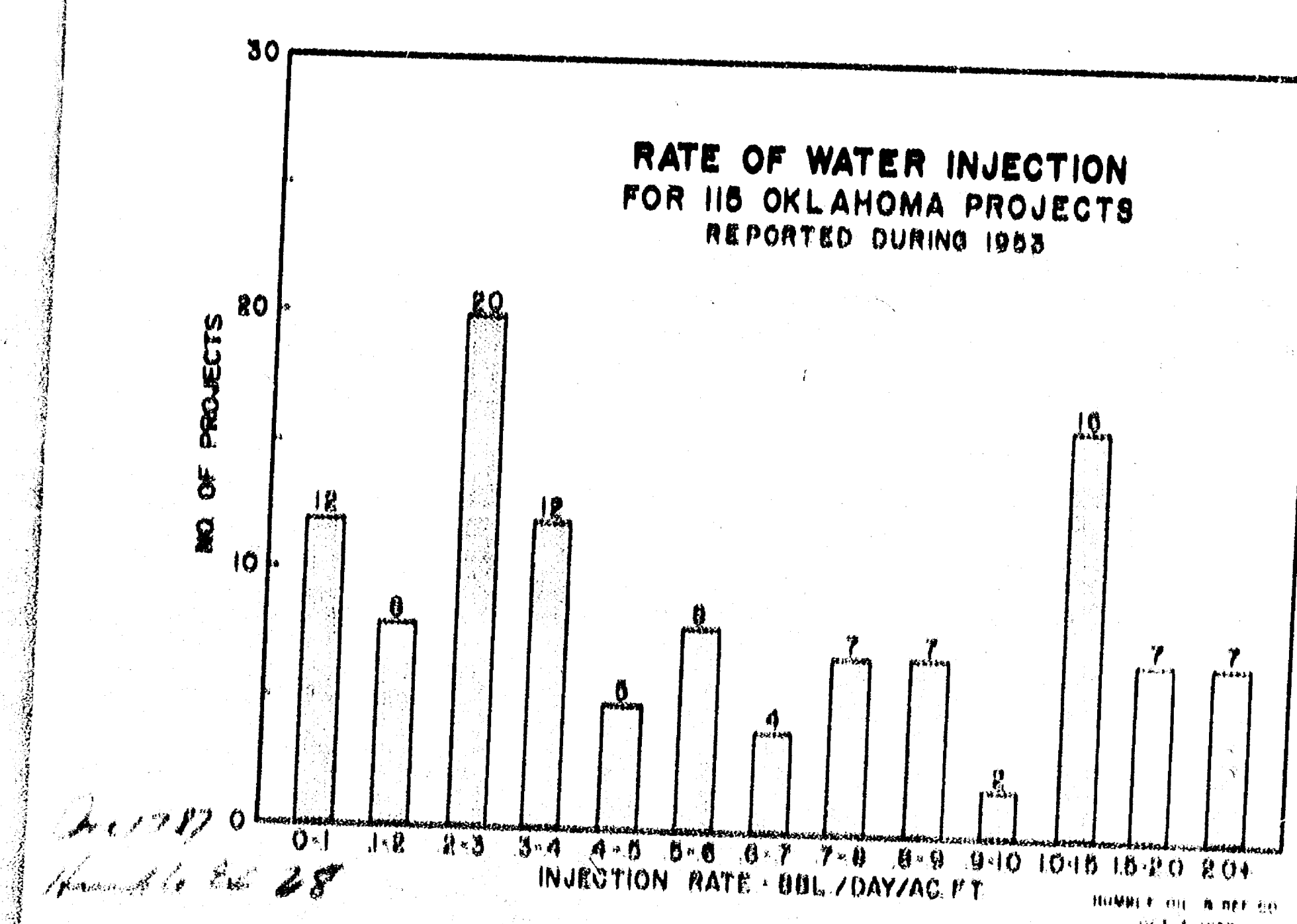
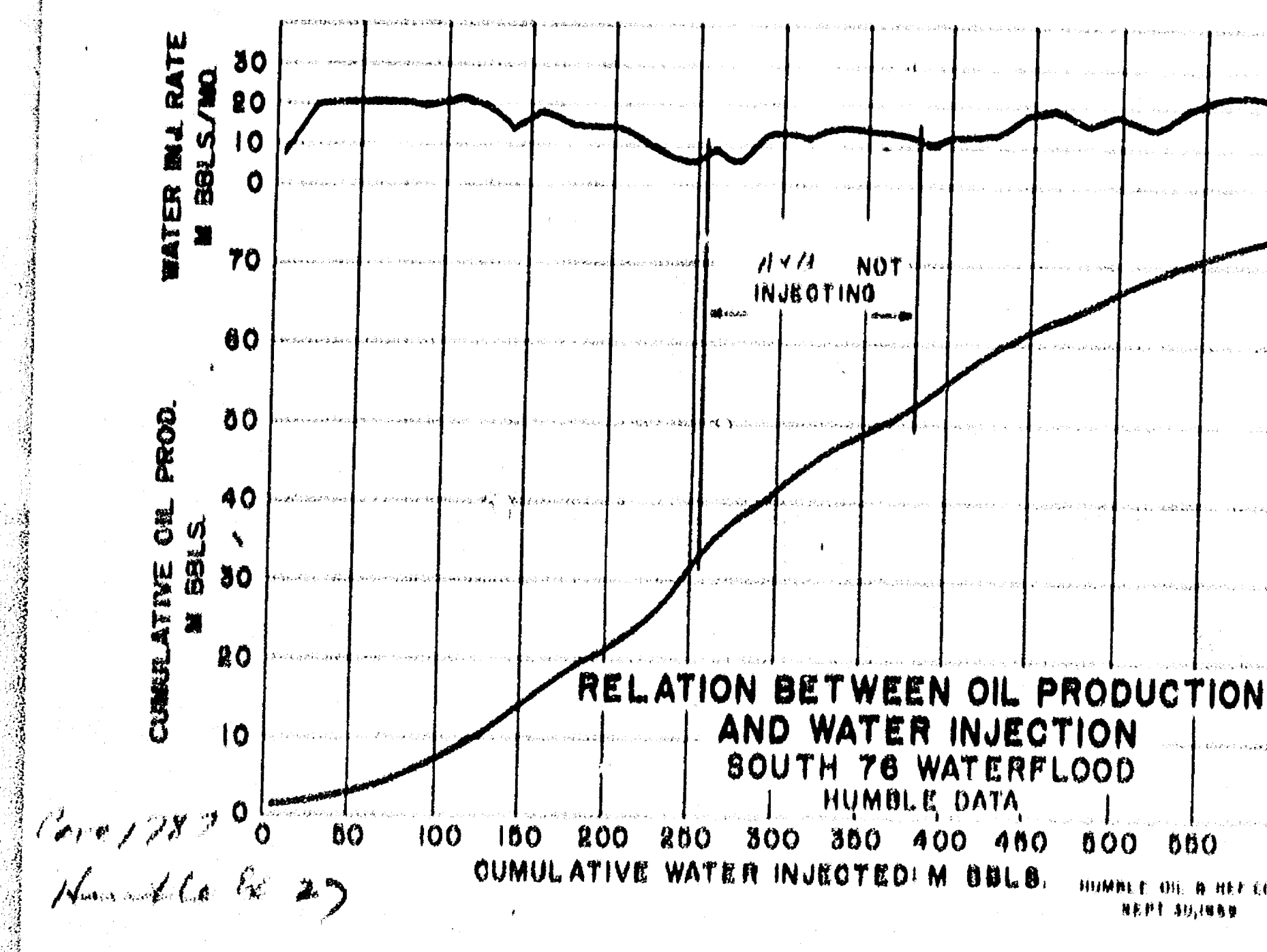
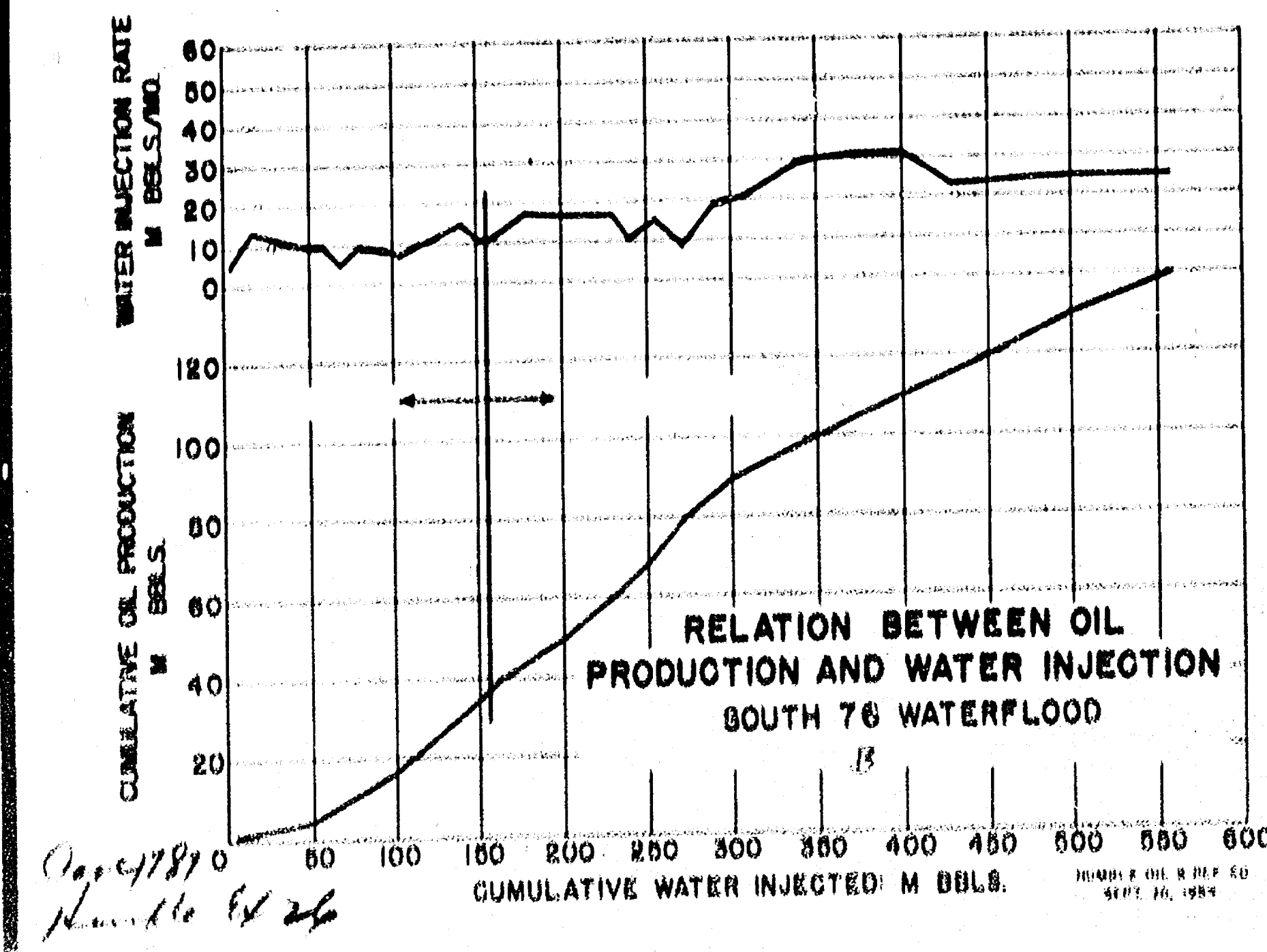
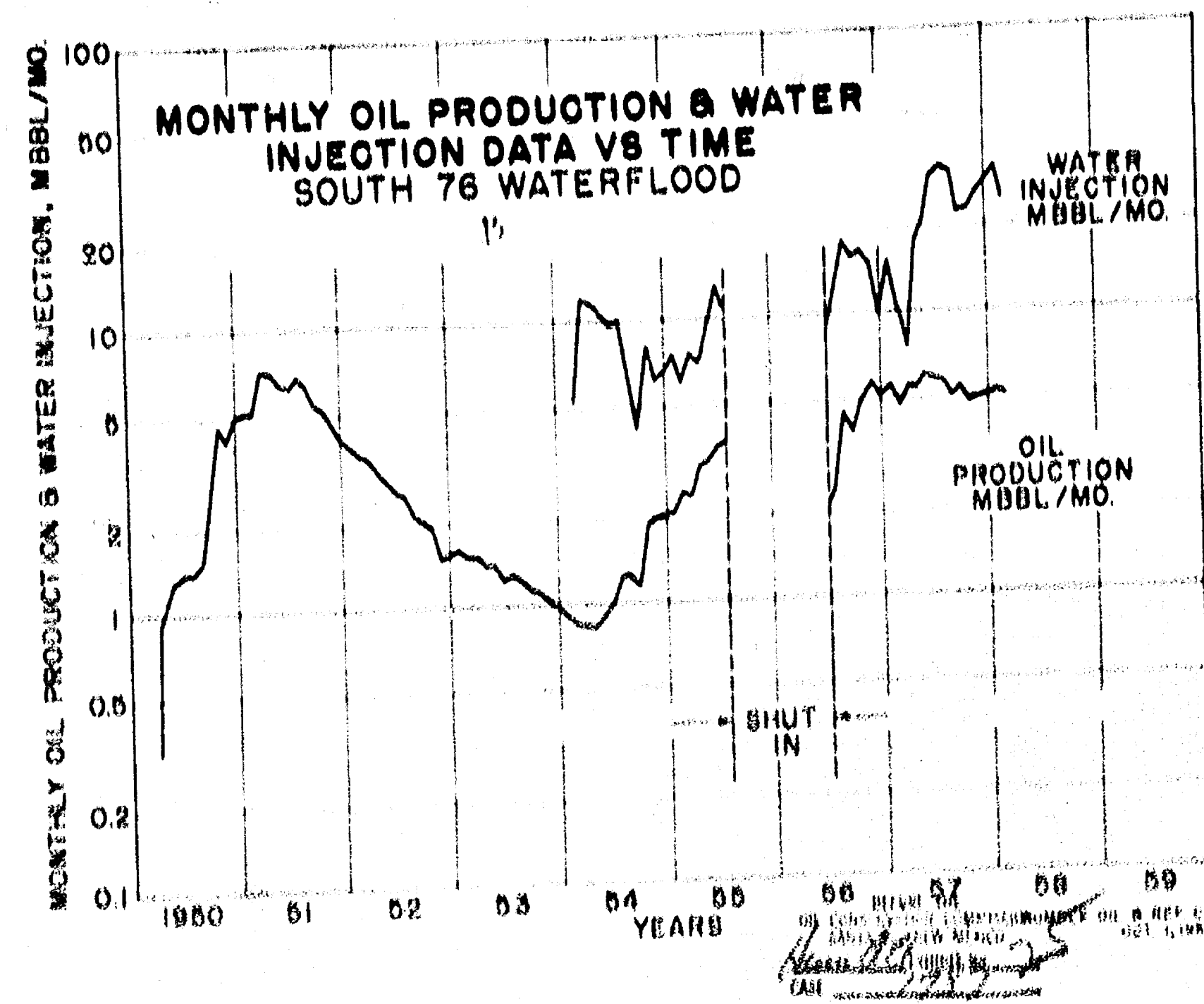


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DESIGNATION OF FLOOD	TYPE OF FLOOD	ACRES	INJECTION RATE, BPD	AVERAGE INJECTION RATE, BPD/AC-FT	DAILY OIL PROD., MBL
NOT PROTECTED					
COLORADO, EXTENSION AREA FLOOD	PATTERN	897	3628	1.01	397
COLORADO, LINE DRIVE FLOOD	LINE DRIVE	480	2183	0.74	480
HOWARD BLANKENBUSH, BATTLES LEASE	PATTERN	90	170	0.59	108
KERMIT, COLBY "D" LEASE	PATTERN	300	3081	0.17	293
KERMIT, HOWE LEASE	PATTERN	240	2276	0.46	119
KERMIT, MCGOUGH LEASE	PATTERN	100	1014	0.18	210
KERMIT, WALTON "D" LEASE	PATTERN	730	4136	1.13	194
NORTH WARD - ESTES, HAWKINS LEASE	PATTERN	240	787	0.08	309
NORTH WARD - ESTES, STATE UNIT "A"	PATTERN	260	3661	0.34	572
SOUTH SEVENTY SIX, W.P. OIL UNIT 1	PATTERN	180	1241	1.79	48
SUBJECT TO PWT - EXEMPT FROM B.O.					
COATES RANCH	PATTERN	220	401	0.45	100
SOUTH LIBERTY, BALDWIN	LINE DRIVE	70	10	0.04	88
THROCKMORTON COUNTY 1700 FEET	PERIPHERAL	90	300	0.88	88
SUBJECT TO PWT & B.O.					
COLUMBIA, DONG "L" LEASE	PATTERN	180	2083	1.35	276
CHARLOTTE PILOT	PATTERN	40	730	1.04	8
DOWDARD, SAN ANGELO PILOT	PATTERN	40	1550	1.89	187
LUNA NOVA, NORTH END	PATTERN	220	2448	0.69	480
MASON BEND, BRAUNWALD	LINE DRIVE	725	3360	0.14	141
MASON BEND, BUTOWSKI	LINE DRIVE	1080	2748	0.07	108

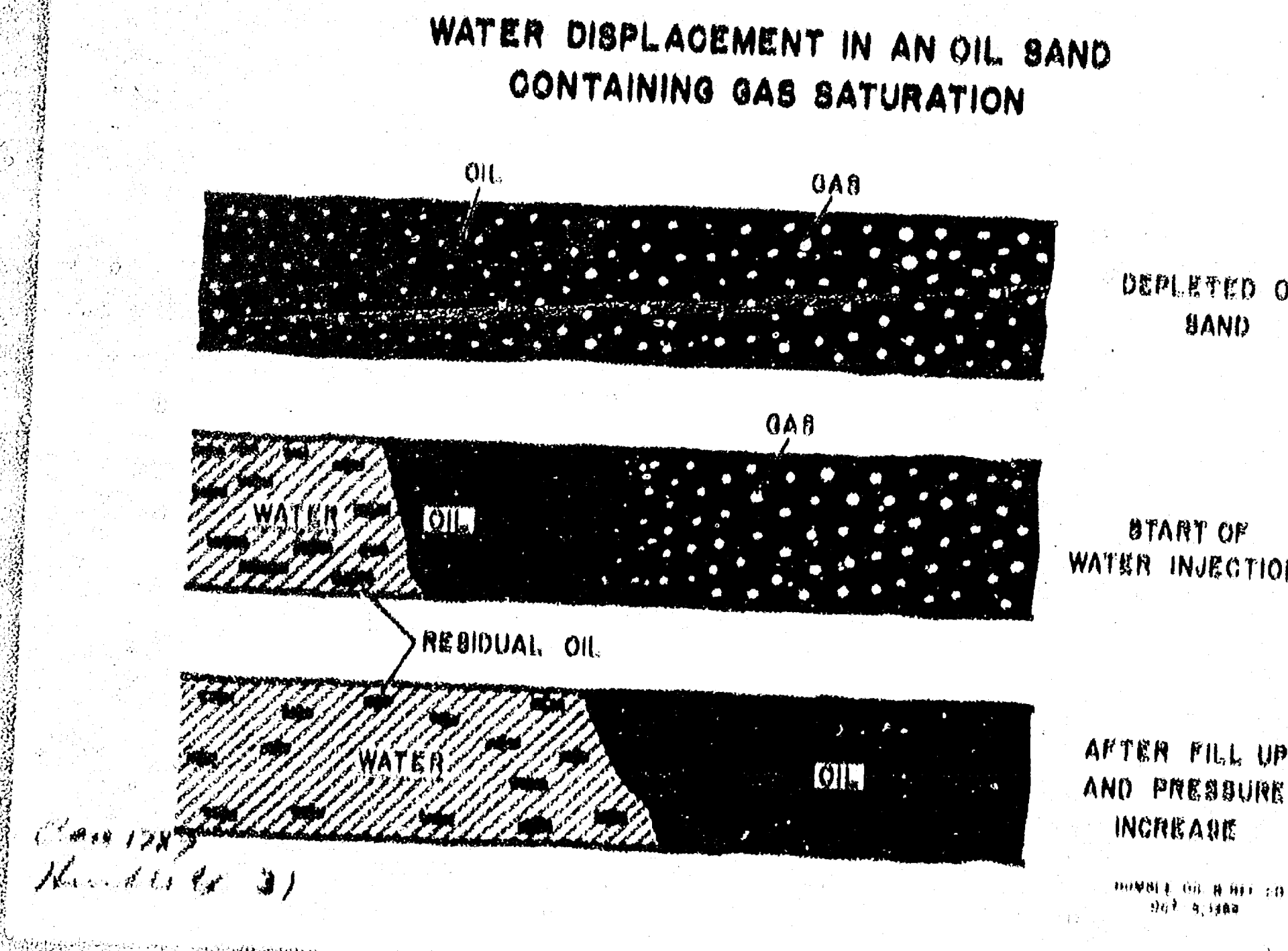




INJECTION WATER HUMBOLDT NEW MEXICO

Field	Injection Rate, BBL/DAY/AC FT
Artesia	0.50
Cottonwood	0.40
Granger	0.47
Johnson	0.48
Cliff Springs	0.47
Great Western	0.47
Griffin - Quinn	0.40
Granger - Jackson	0.40
High Line	0.40
Langleyville	0.41
Long Hill	0.40
Holmes	0.40
Red Lake - Grayburg	0.41
Brussels - Yates	0.40
Proctor, Wm.	0.41
Quinn Lake	0.40
Various	0.40

HUMBOLDT OIL & REFINING CO. EXHIBIT



LARGE PRESSURE MAINTENANCE PROJECTS

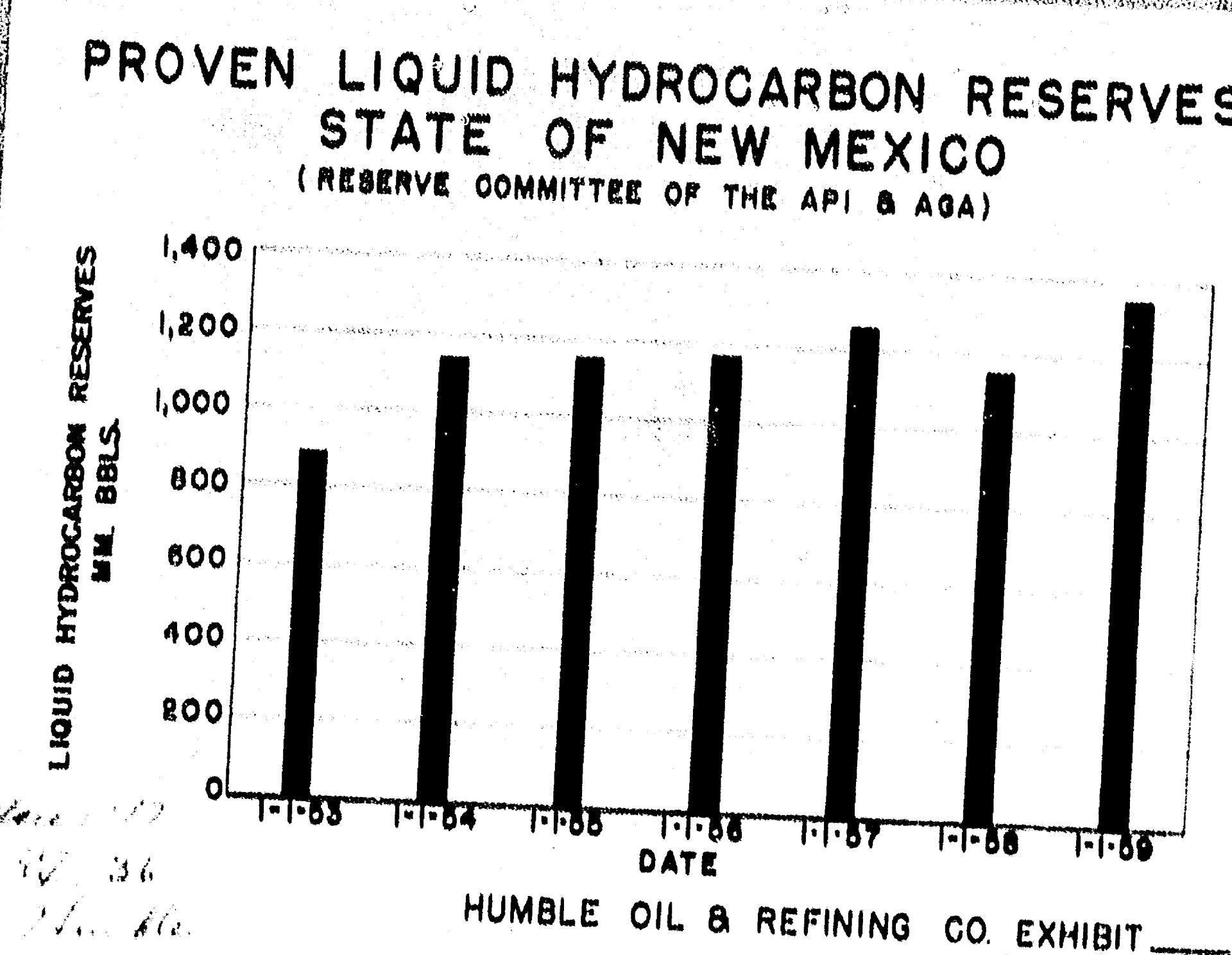
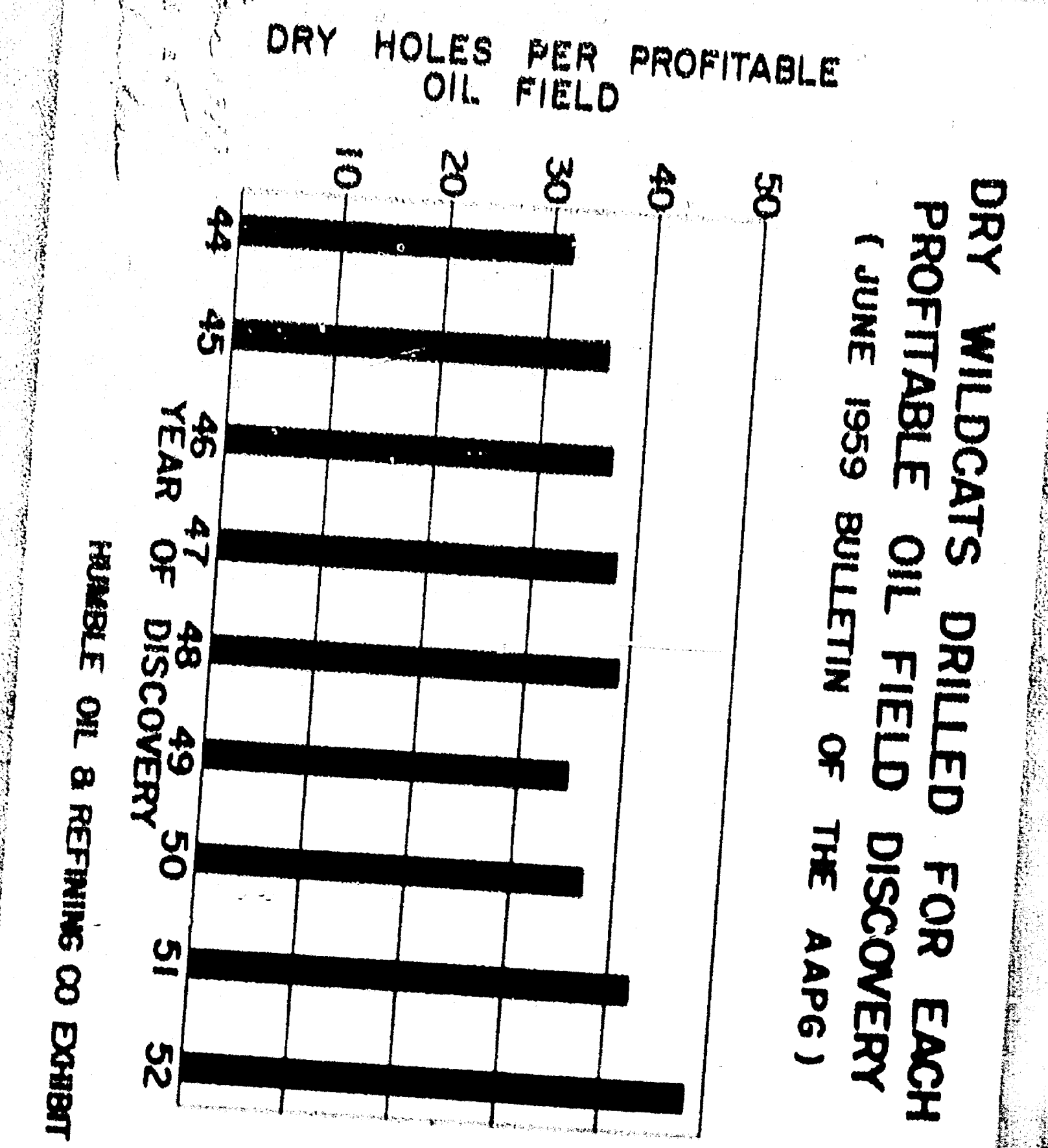
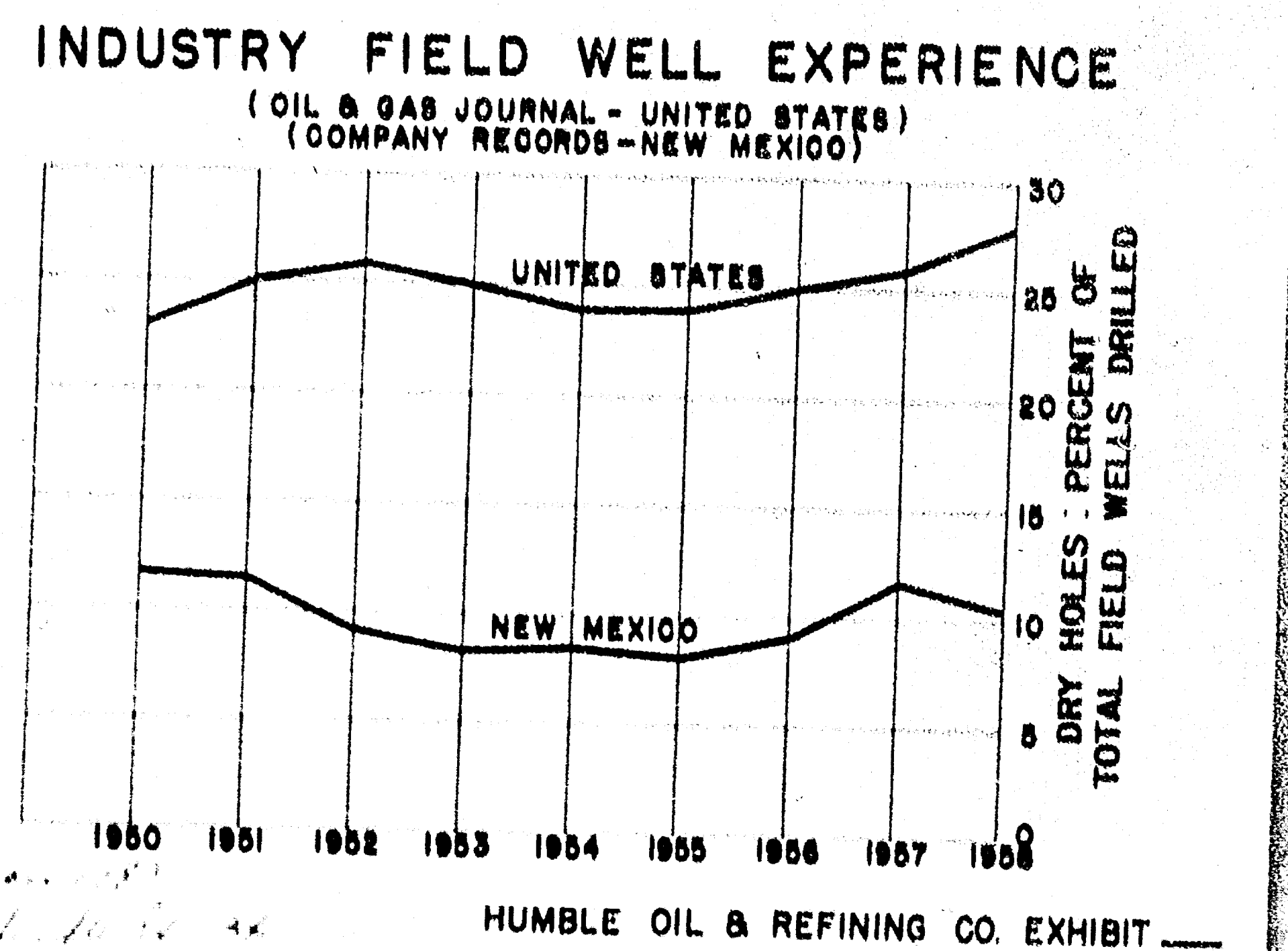
FIELD	WATER INJECTED BBL/D	INJECTION RATE BBL/D/AC FT	OIL PRODUCTION BBL/D
ADAIR WOLF CAMP	9900	.04	3092
COSDELL	43400	.03	13973
DIAMOND "M"			
LION UNIT	22200	.03	3826
SHARON RIDGE UNIT	40100	.03	12871
EAST TEXAS	473300	.11	130314
KELLY SNYDER, BAOROC UNIT	107000	.01	88363
BALT CREEK	13700	.01	9169
TODD, CRINGIDAL	2500	.01	1800

HUMBOLDT OIL & REFINING CO. EXHIBIT

INDUSTRY EXPLORATORY DRILLING EXPERIENCE YEAR 1958 (FROM AAPG JUNE 1959 BULLETIN)

	TOTAL EXPLORATORY WELLS DRILLED	EXPLORATORY DRY HOLES	DRY EXPLORATORY HOLES PERCENT OF TOTAL
UNITED STATES	13,199	10,632	81
NEW MEXICO	325	235	72

HUMBOLDT OIL & REFINING CO. EXHIBIT



CONVERSION COSTS TO CONDUCT PRESSURE MAINTENANCE AND SECONDARY RECOVERY PROJECTS

YEAR INITIATED	NUMBER OF WELLS PRODUCING INJECTION	PROJECT CONVERSION COSTS/ACRE
PRESSURE MAINTENANCE PROJECTS		
UNIT A 1955	305	39
UNIT B 1954	1100	66
UNIT C 1955	320	48
UNIT D 1956	58	6
FIVE-SPOT WATERFLOOD		
FLOOD A 1955	18	17
FLOOD B 1944	16	13
FLOOD C 1949	12	12
FLOOD D	Planning	94
FLOOD E	Planning	148
FLOOD F 1957	22	22

CONVERSION COSTS INCLUDE: DEVELOPING SOURCE OF INJECTION WATER, INSTALLATION OF WATER INJECTION FACILITIES, AND PERFORMING NECESSARY WORKOVERS TO INITIATE THE PROJECT

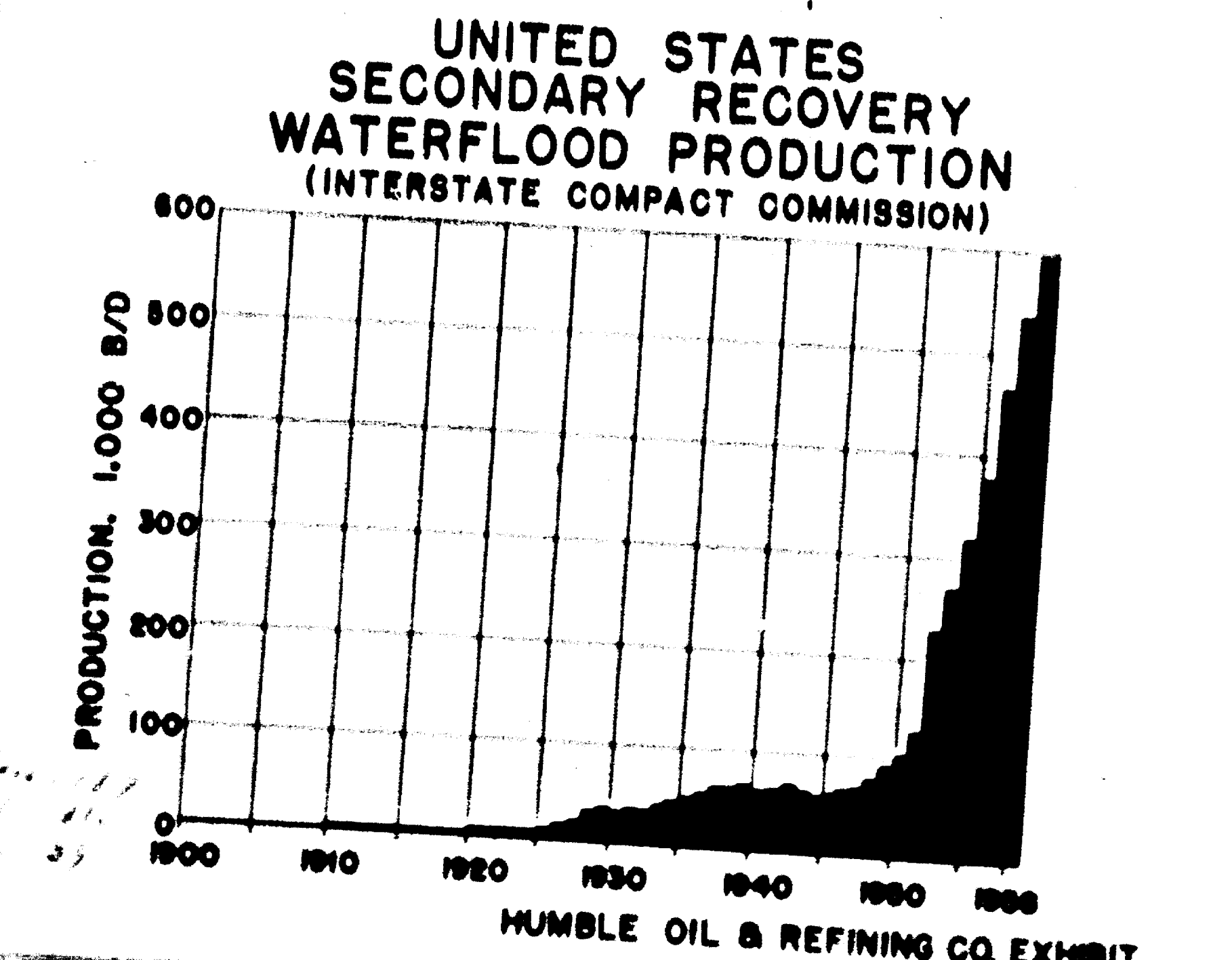
*DEVELOPMENT COST

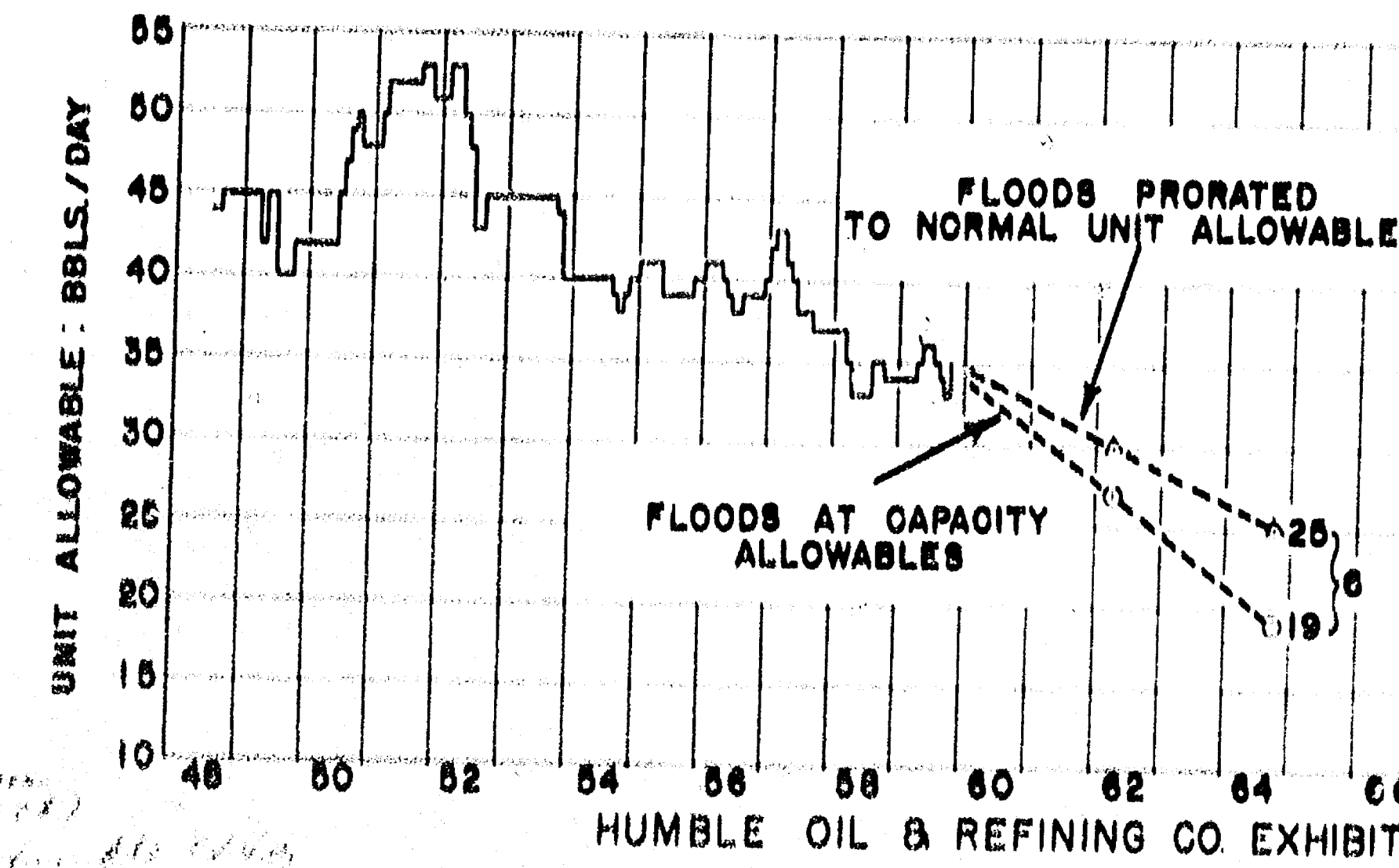
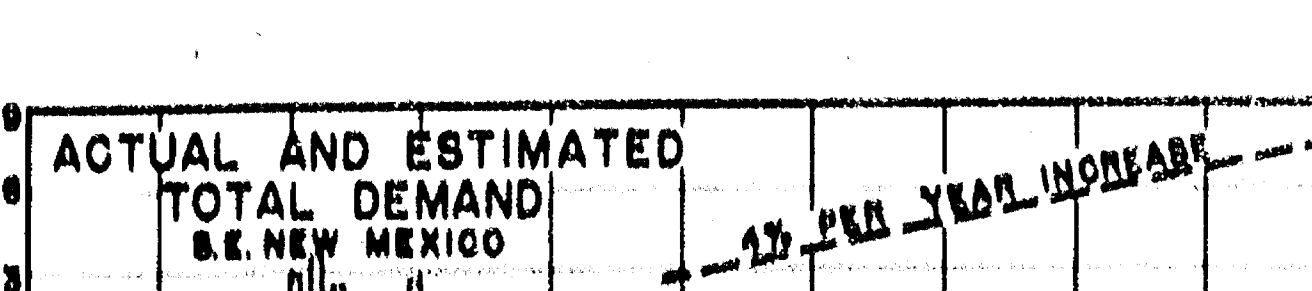
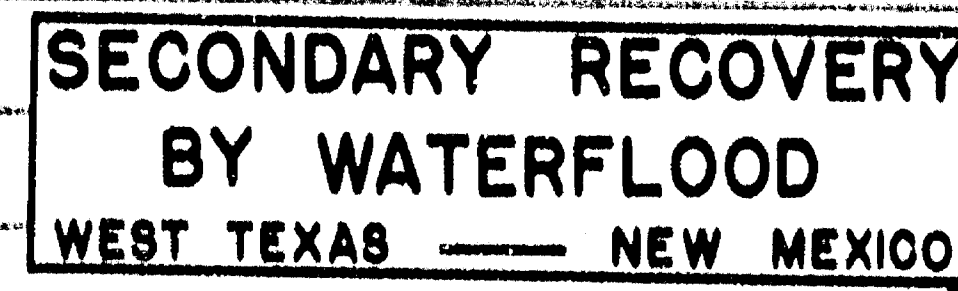
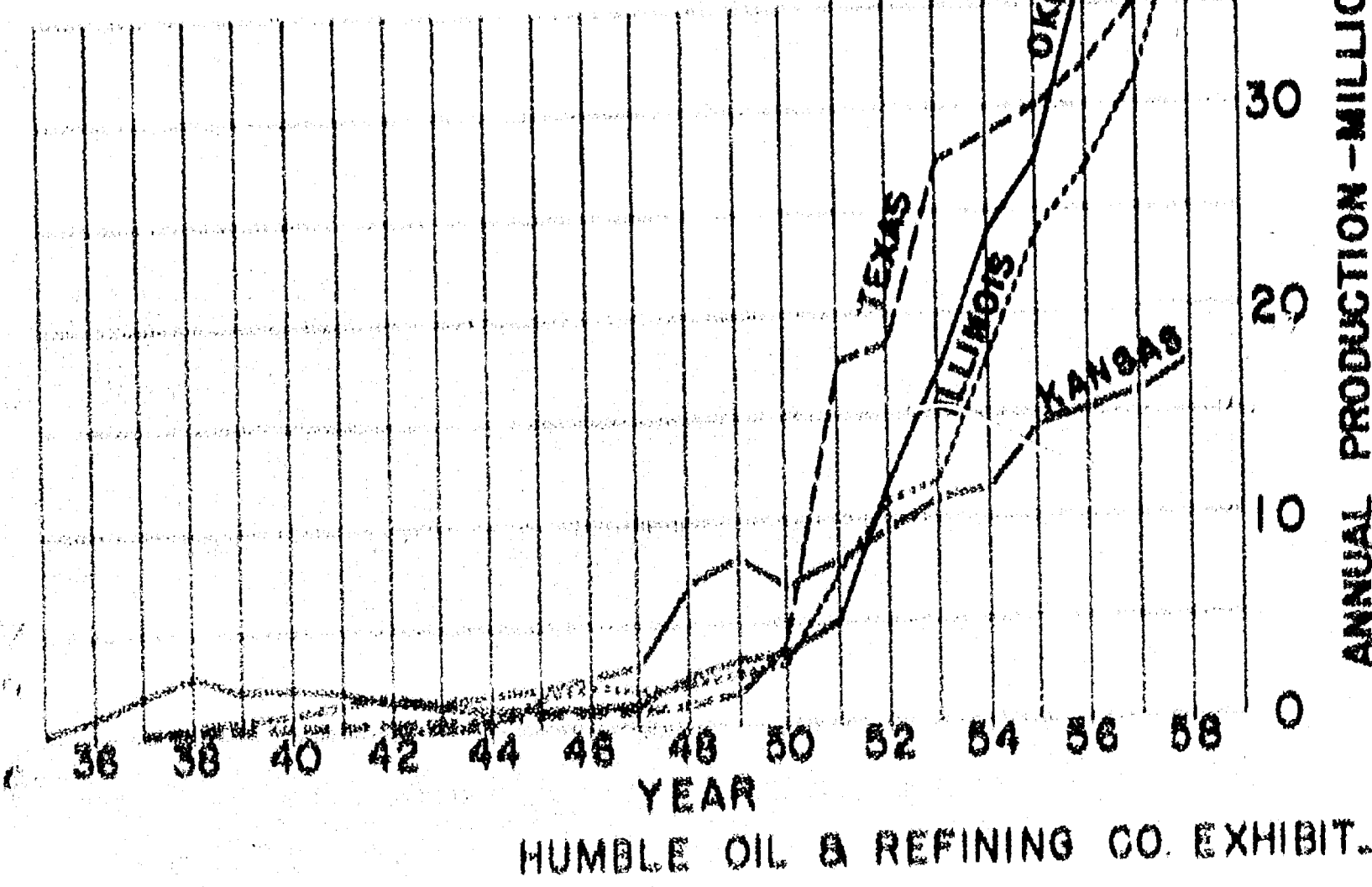
HUMBOLDT OIL & REFINING CO. EXHIBIT

DEVELOPMENT COSTS FOR PRIMARY PRODUCTION TYPICAL NEW MEXICO FIELDS

DEPTH	INVESTMENT FOR WELL DRILLING & LSE. FACILITIES \$/ACRE
AREA A 3900	1038
AREA B 4200	1259
AREA C 6200	2238

HUMBOLDT OIL & REFINING CO. EXHIBIT





- EXHIBIT 11. 4. 10011001 COMPANY EXHIBIT

1. A plan showing the location of the proposed injection well(s) and the location of all other wells within a radius of the center of said proposed injection well(s), and the formation from which said wells are producing or have produced. The plan shall also indicate the licensee, if any there be, within said boundary section.
2. A log of the proposed injection well(s) if same is available.
3. A description of the proposed injection well(s) testing program.
4. Such other pertinent information as the owner and staff of the owner or formation lease which injection will be made, the kind of fluid to be injected, the anticipated amounts to be injected, and the source of said injection fluids.

The Commission may dispense with the 15-day waiting period if waivers of objection are received from all objectors and the surface owner, and no objection is made by the State Engineering Office.

8. Injection projects shall be expanded and additional wells placed on injection only upon authority from the Commission after notice and hearing or by administrative procedure in accordance with the following:

In order for a well to be added to a project by administrative approval for conversion to injection, it must be established to the satisfaction of the Secretary-Director of the Commission, that the proposed injection well is located on an injection pattern which will result in a thorough and efficient sweep of oil by the injected fluid in the project area being enlarged and also in accordance with the pattern used in other project areas in the field.

The allowable assigned to projects designed for the purpose of secondary sea recovery or for the purpose of pressure maintenance is reserves shall be determined as follows:

And the possibility of entering into a secondary recovery or pressure maintenance project, the initial pilot project in this pool may be granted a temporary Allowable in excess of the number of formation units in the greater area than the Initial Unit Allowable (the same proportional factor for the pool for only such a period of time as is deemed necessary by the Oil Conservation Committee to permit adequate evaluation of the project.

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HUMBLE OIL & REFINING CO. EXHIBIT.____

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HUMBLE OIL & REFINING CO. EXHIBIT—



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South Fremont, Washington

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CONFIDENTIAL

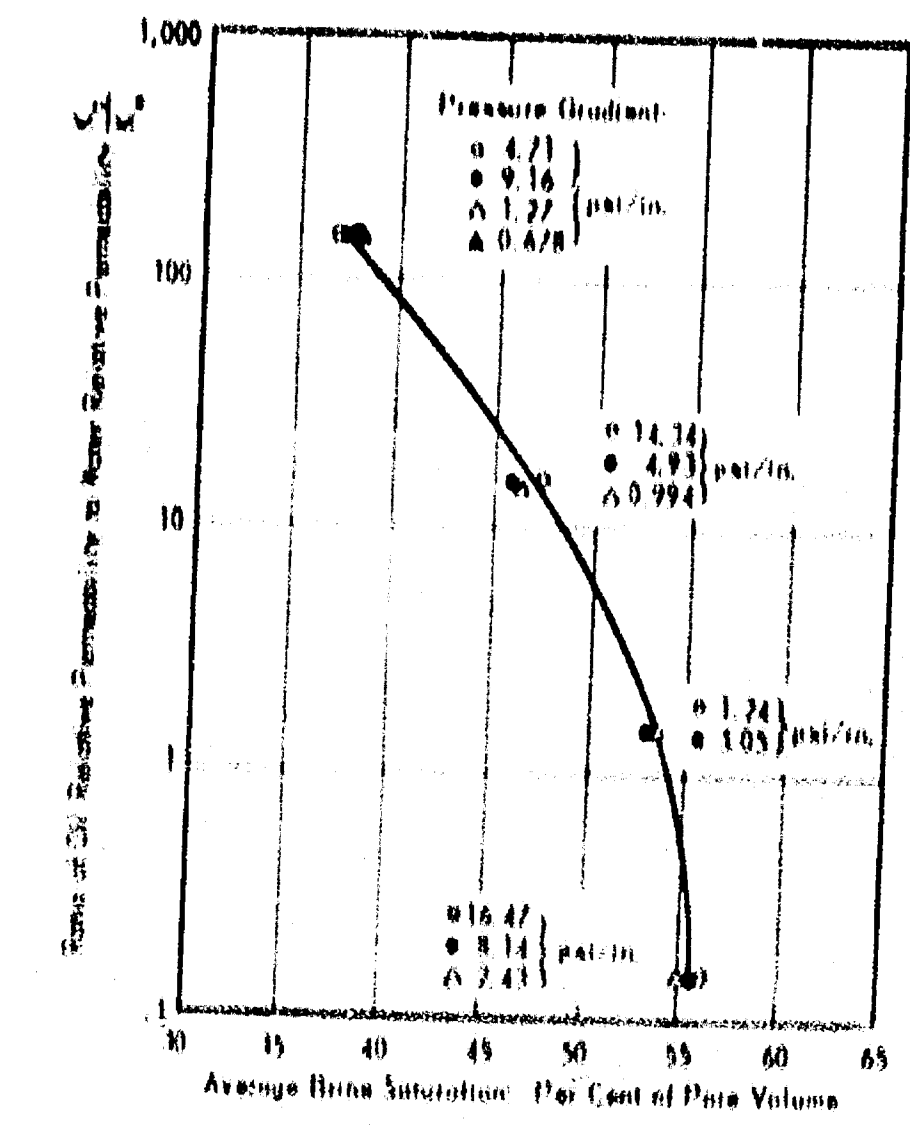
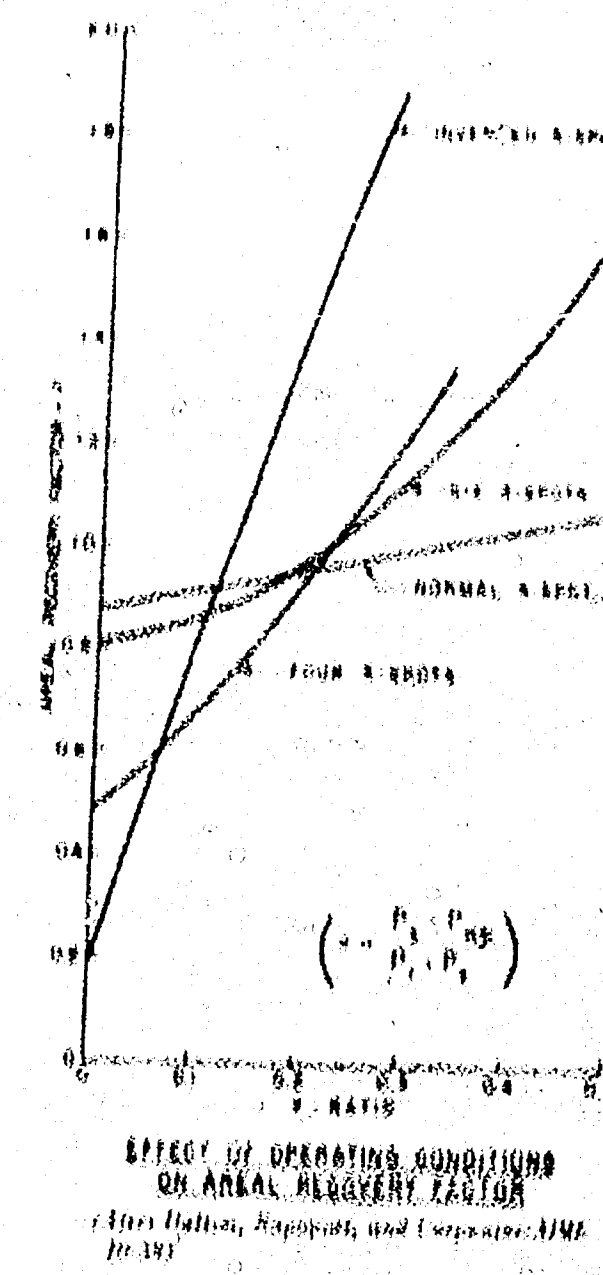
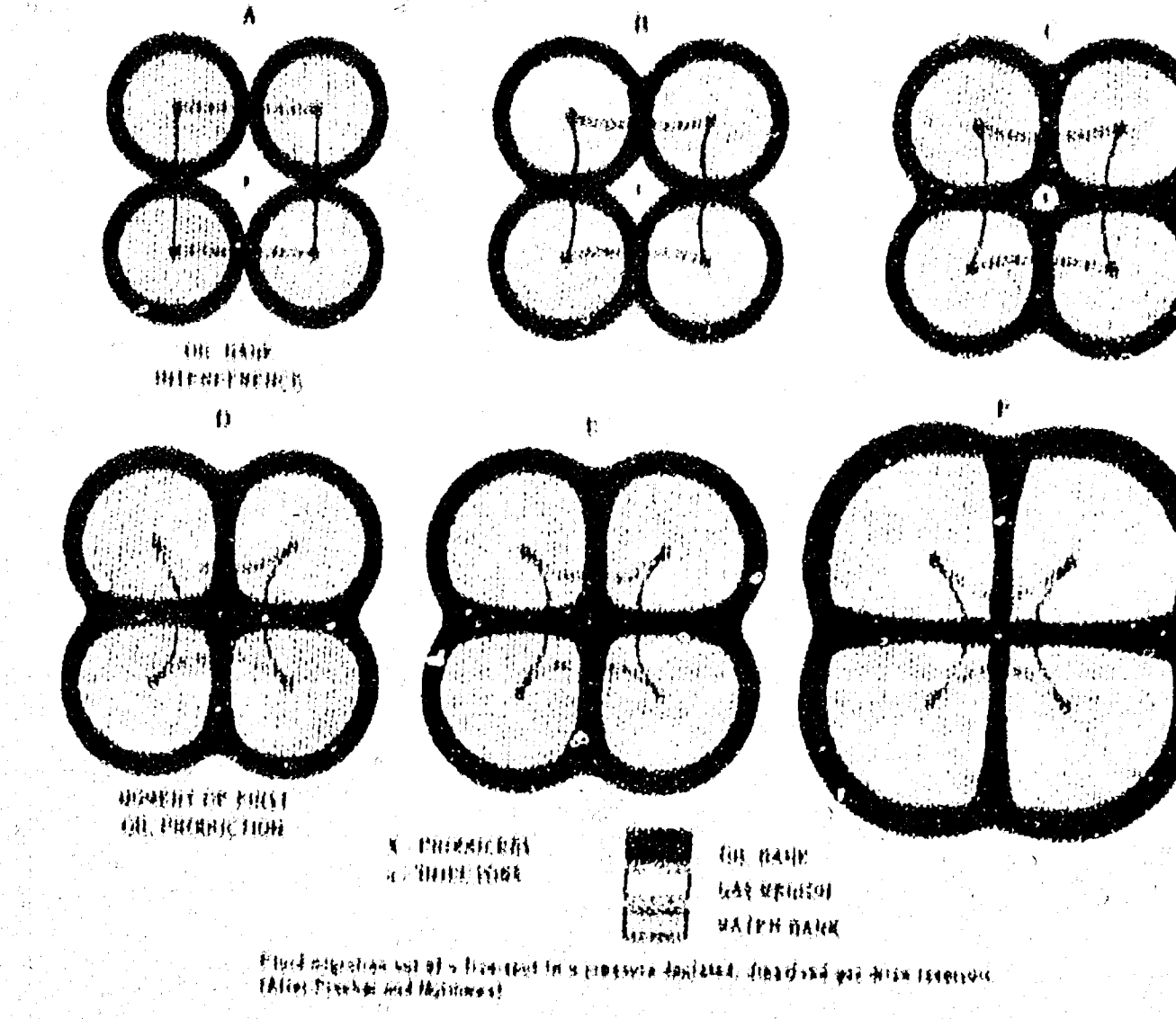
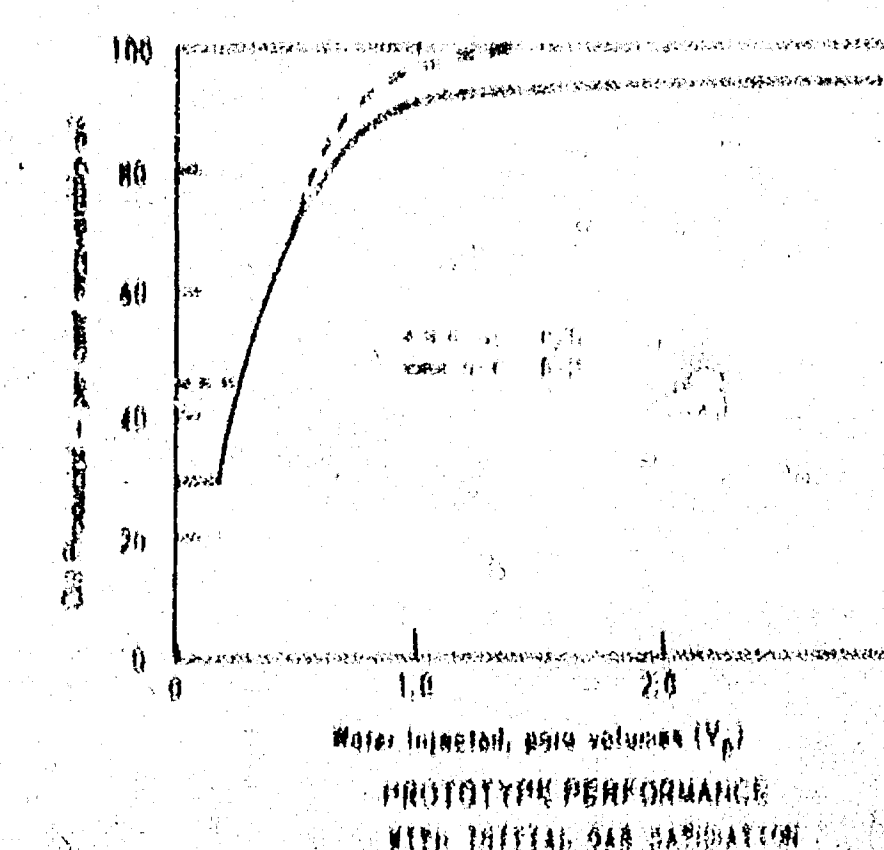
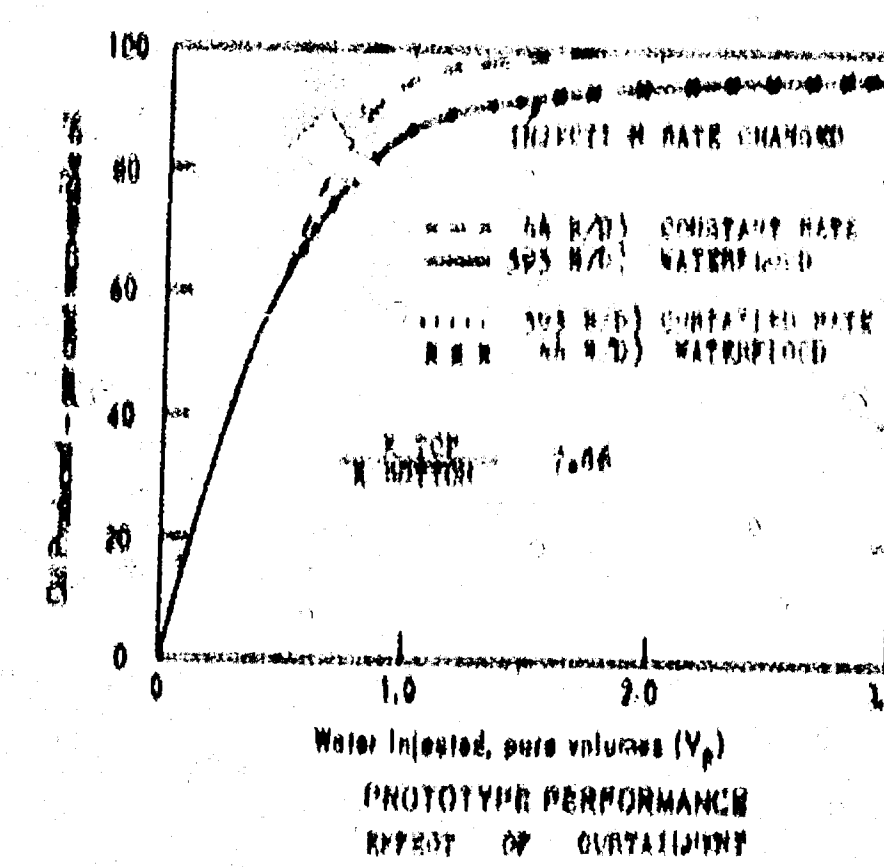
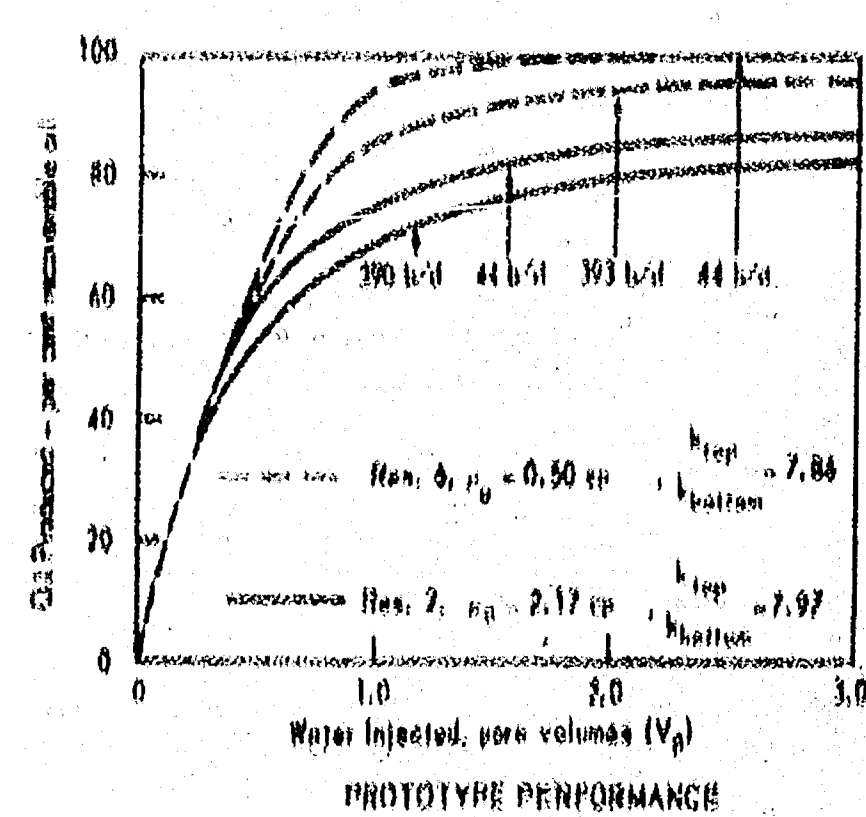
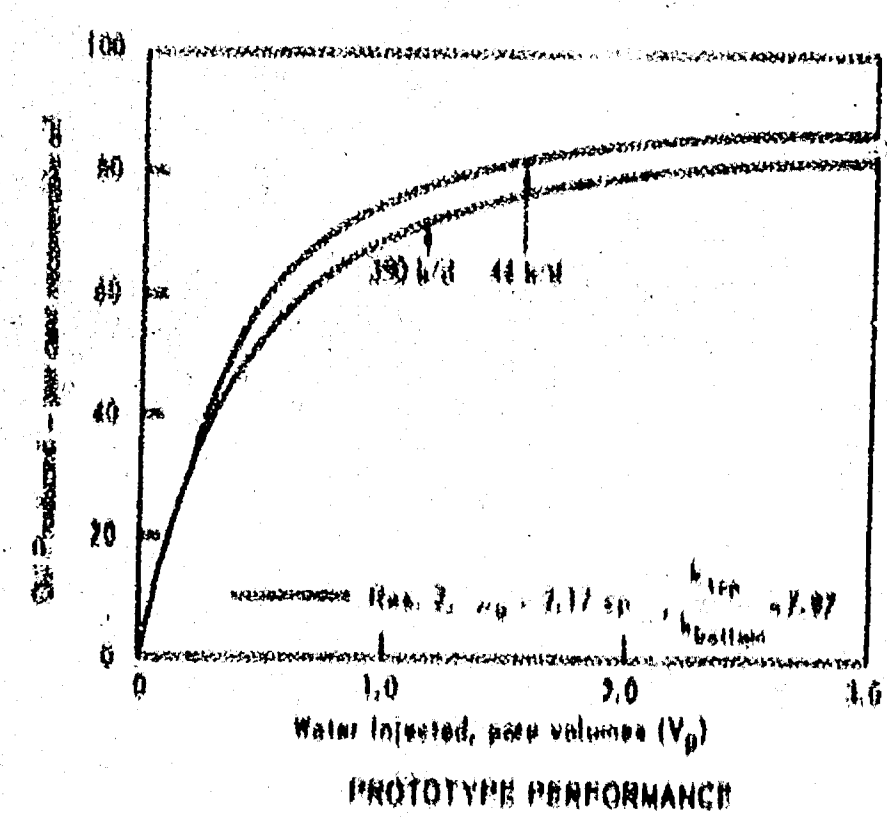


Figure 1(a) shows a cross-section of a stratified medium with a water head of 100 Ft. The medium is divided into two layers: a top layer with a hydraulic conductivity of 1.5×10^{-4} Ft./Day and a bottom layer with a hydraulic conductivity of 4.1×10^{-4} Ft./Day. The total length is 100 Ft. The water head is 100 Ft. The water flow is indicated by an arrow pointing from left to right.

Figure 1(b) is a graph showing the effect of water head on the hydraulic conductance of a stratified medium. The y-axis is labeled "Hydraulic Conductance" and ranges from 0 to 1.0. The x-axis is labeled "Water Head, Feet" and ranges from 0 to 1.4. A dashed line represents the theoretical hydraulic conductance for a homogeneous medium with a hydraulic conductivity of 1.5×10^{-4} Ft./Day. The data points for the stratified medium show a sharp increase in hydraulic conductance at low water heads, followed by a plateau at higher water heads. The plateau is labeled "Water Head Through" and "Water Head Through".

Water Head (Feet)	Hydraulic Conductance
0.1	0.1
0.2	0.2
0.3	0.3
0.4	0.4
0.5	0.5
0.6	0.6
0.7	0.65
0.8	0.65
0.9	0.65
1.0	0.65
1.1	0.65
1.2	0.65
1.3	0.65
1.4	0.65



SUMMARY OF NITROGEN WATER LOAD ALLOWABLE IN TEXAS, September, 1939

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
RRP	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow
Dist.	Fields	Fields	Fields	Fields	Fields	Fields	Fields	Fields	Fields	Fields	Fields
1	11	10	22	16	28	1	28	1	1	1	1
2	4	5	12	11	23	1	23	1	1	1	1
3	5	5	19	10	16	1	16	1	1	1	1
4	14	14	140	14	140	1	140	1	1	1	1
5	3	24	404	10	241	1	241	1	1	1	1
6	5	2	118	27	175	1	175	1	1	1	1
7	10	10	2,519	115	3,022	1	3,022	1	1	1	1
8	11	11	320	100	320	1	320	1	1	1	1
9	15	106	2,668	1,111	5,399	1	5,399	1	1	1	1
10	105	100	5,082	1,811	7,225	1	7,225	1	1	1	1
10**	18	16	175	119	331	1	331	1	1	1	1
TOTAL	240	2,004	18,640	5,324	19,904	1	19,904	1	1	1	1

Summary of Nitrogen Water Load Allowable in Texas, September, 1939

Source: Monthly production reports of the Texas Corporation Commission.

Summary of Nitrogen Water Load Allowable in Texas, September, 1939

Month	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow
Dist.	Fields	Fields	Fields	Fields	Fields	Fields	Fields	Fields	Fields	Fields	Fields
January	6,100	100,000	10	1,000	10,000	1	10,000	1	1	1	1
February	6,250	100,000	10	1,000	10,000	1	10,000	1	1	1	1
March	6,300	100,000	10	1,000	10,000	1	10,000	1	1	1	1
April	6,100	100,000	10	1,000	10,000	1	10,000	1	1	1	1
May	6,100	100,000	10	1,000	10,000	1	10,000	1	1	1	1
June	6,100	100,000	10	1,000	10,000	1	10,000	1	1	1	1
July	6,100	100,000	10	1,000	10,000	1	10,000	1	1	1	1
August	6,100	100,000	10	1,000	10,000	1	10,000	1	1	1	1
Average	6,100	100,000	10	1,000	10,000	1	10,000	1	1	1	1

Source: Monthly production reports of the Texas Corporation Commission.

Summary of Nitrogen Water Load Allowable in Texas, September, 1939

Month	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow
Dist.	Fields	Fields	Fields	Fields	Fields	Fields	Fields	Fields	Fields	Fields	Fields
1938	100,000	10,000	1,000	100,000	10,000	1,000	100,000	10,000	1,000	100,000	10,000
1939	100,000	10,000	1,000	100,000	10,000	1,000	100,000	10,000	1,000	100,000	10,000
1940	100,000	10,000	1,000	100,000	10,000	1,000	100,000	10,000	1,000	100,000	10,000
1941	100,000	10,000	1,000	100,000	10,000	1,000	100,000	10,000	1,000	100,000	10,000
1942	100,000	10,000	1,000	100,000	10,000	1,000	100,000	10,000	1,000	100,000	10,000
1943	100,000	10,000	1,000	100,000	10,000	1,000	100,000	10,000	1,000	100,000	10,000
1944	100,000	10,000	1,000	100,000	10,000	1,000	100,000	10,000	1,000	100,000	10,000
1945	100,000	10,000	1,000	100,000	10,000	1,000	100,000	10,000	1,000	100,000	10,000
1946	100,000	10,000	1,000	100,000	10,000	1,000	100,000	10,000	1,000	100,000	10,000
1947	100,000	10,000	1,000	100,000	10,000	1,000	100,000	10,000	1,000	100,000	10,000
1948	100,000	10,000	1,000	100,000	10,000	1,000	100,000	10,000	1,000	100,000	10,000
1949	100,000	10,000	1,000	100,000	10,000	1,000	100,000	10,000	1,000	100,000	10,000

Source: Annual data published by State Geological Survey of Texas.