

JOHN A. YATES

Oil Producer

ARTESIA: NEW MEXICO - 88210

XXXXXXXXXXXXXXXXXXXX
DIAL 746-3558

August 7, 1969

Mr. A. L. Porter Jr, Secretary-Director
New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico, 87501

Case 4208

Re: Application to Inject Water into Seven Rivers
Formation, Millman East Pool, Eddy County

Dear Mr. Porter:

Application is hereby submitted by John A. Yates of Artesia for original authority to inject water into the Seven Rivers formation for a waterflood program in the Millman East (Seven Rivers) Pool, Eddy County, New Mexico. The area is located approximately 19 miles southeast of Artesia.

Permission is asked to convert two producing wells to input located as follows:

[John A. Yates- Mary Lou #1	1650/N	330/E	(Unit H)	Sec 29-19-28
	John A. Yates- Caroline #4	1650/N	330/W	(Unit E)	Sec 28-19-28

Cumulative production from the Mary Lou lease thru May 1969 is 25,485 barrels oil, and productivity has declined to 36 BOPM from four wells. Cumulative production from the Caroline lease thru May 1969 is 57,018 barrels oil, and productivity has declined to 136 BOPM from five wells.

The oil pay is a series of thin porous limestone interbedded with sand bodies in the uppermost 140 feet of the Seven Rivers formation, occurring at depths of 1045-1200 feet, and appears as bar-type stratigraphic traps on a north-easterly strike, approximately one-third mile in width. There are no core data available for this pool, but production decline curves indicate relatively high permeabilities and a solution gas depletion mechanism.

Original oil in place is estimated at about 600 STBO/ac-ft, and primary production at about 93 STBO/ac-ft, or approximately 16 percent of oil in place. It is anticipated that injectivity will be 275 BWPD per well at 500 psi well-head pressures. Source water will be fresh water from the Double Eagle Corp., an authorized transporter and vender of Ogallala water from the Caprock.

A plat showing the location of the proposed injection wells and other wells within a two-mile radius, and indicating the lessees and producing formations is appended (Exhibit I). Diagrammatic sketches and copies of the electric logs of the proposed input wells are also attached (Exhibits II, III and IV).

Respectfully submitted,

John A. Yates
JOHN A. YATES

DOCKET MAILED

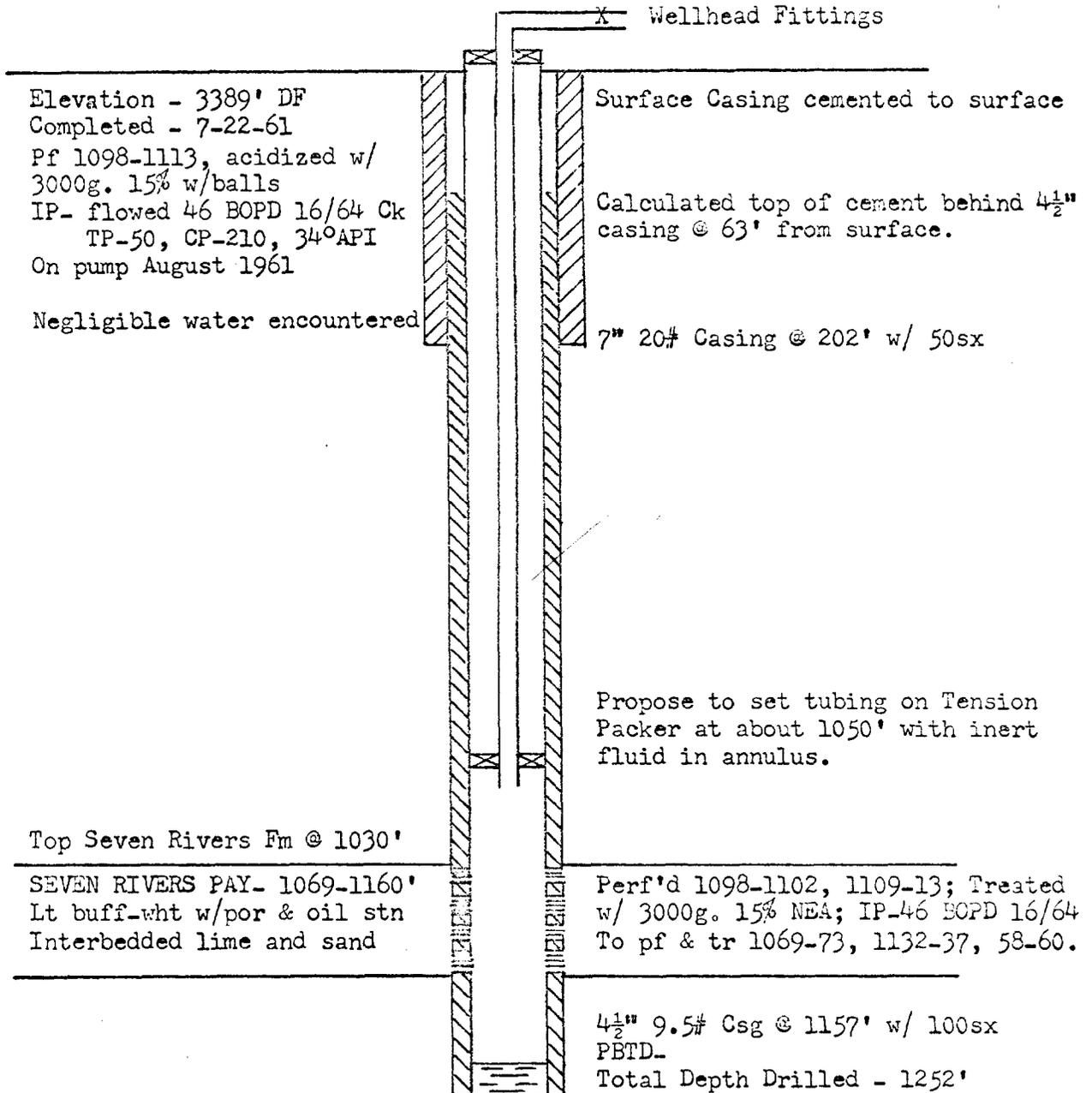
Date 8/15/69

Case 4208

DIAGRAMMATIC SKETCH OF INJECTION WELL

JOHN A. YATES - MARY LOU NO. 1
1650/N 330/E, H-29-19-28
Millman, East (Seven Rivers)
Eddy County, New Mexico

EXHIBIT II

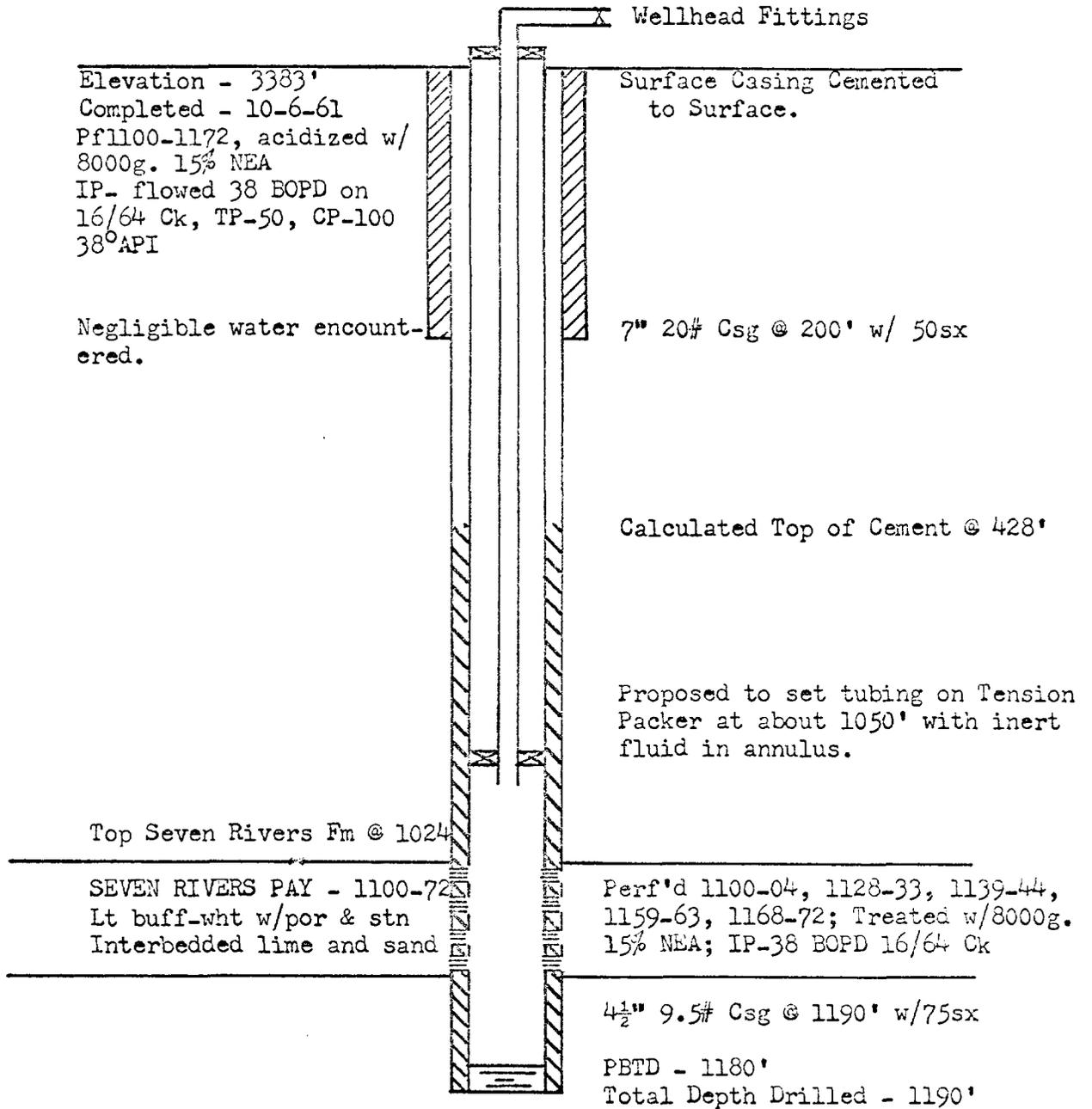


Case 4208

DIAGRAMMATIC SKETCH OF INJECTION WELL

JOHN A. YATES - CAROLINE NO. 4
1650/N 330/W, E-28-19-28
Millman, East (Seven Rivers)
Eddy County, New Mexico

EXHIBIT III



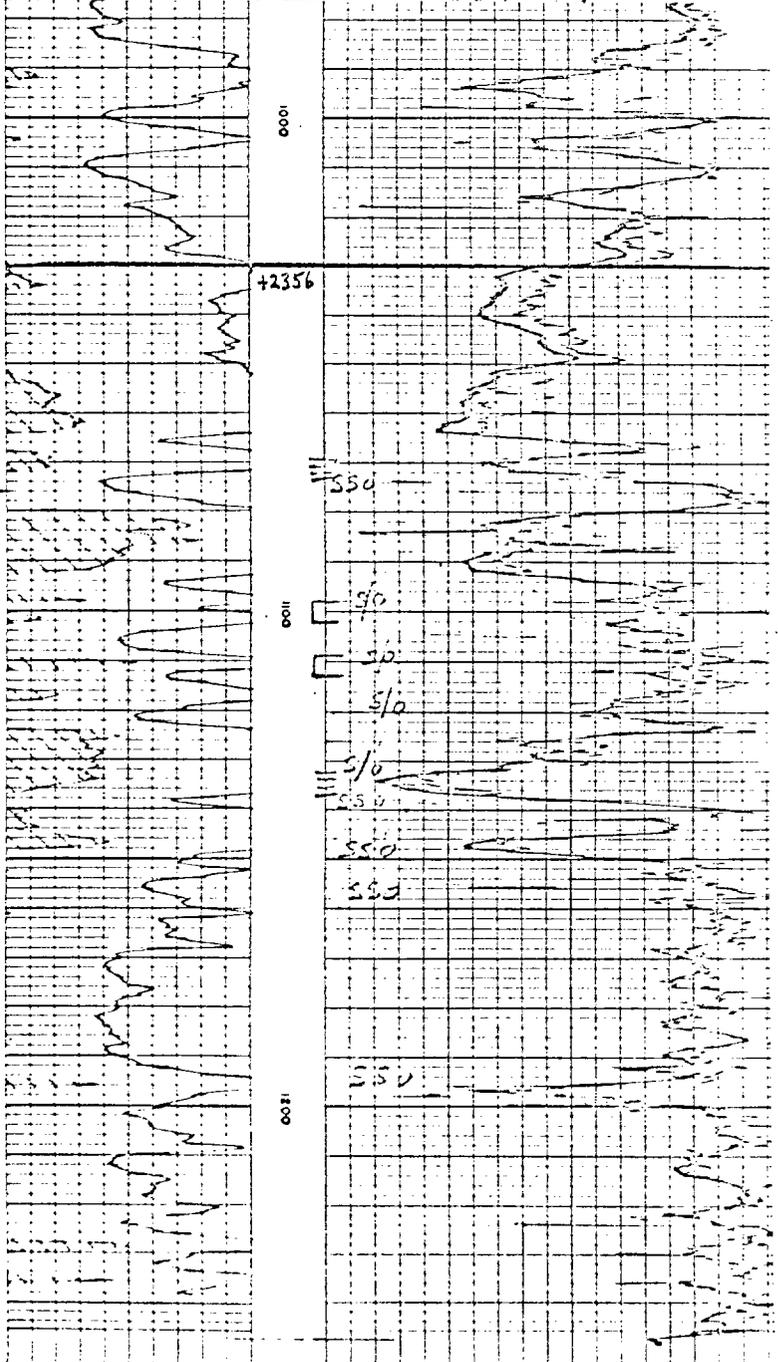
Chad 42-08

FILE NO. _____ COMPANY JOHN A. YATES
 WELL MARY LOU No. 1
 FIELD UNDESIGNATED
 COUNTY EDDY STATE NEW MEXICO
 LOCATION 330' FEL, 1650' FNL
 Other Services
 IES
 SEC 29 TWP 19 S RGE 28 E

EXHIBIT IV

Permanent Datum GROUND LEVEL Elev. _____
 Log Measured from GROUND LEVEL Ft. Above Permanent Datum KB _____
 Drilling Measured from GROUND LEVEL DF 3386
 GL _____

Date	7-23-61
Run No.	ONE
Depth—Driller	252
Depth—Logger	252
Bottom Logged Interval	1248
Top Logged Interval	100
Casing—Driller	227
Casing—Logger	230
Bit Size	CABLE TOOL
Type Fluid in Hole	FRESH WATER OIL
	FULL
Density and Viscosity	
pH and fluid loss	
Source of Sample	PIT
Rm @ Meas. Temp	34 @ 95
Rmc @ Meas. Temp	
Rmc @ Meas. Temp	
Source of Rmf and Rmc	
Rm @ BHT	32 @ 85

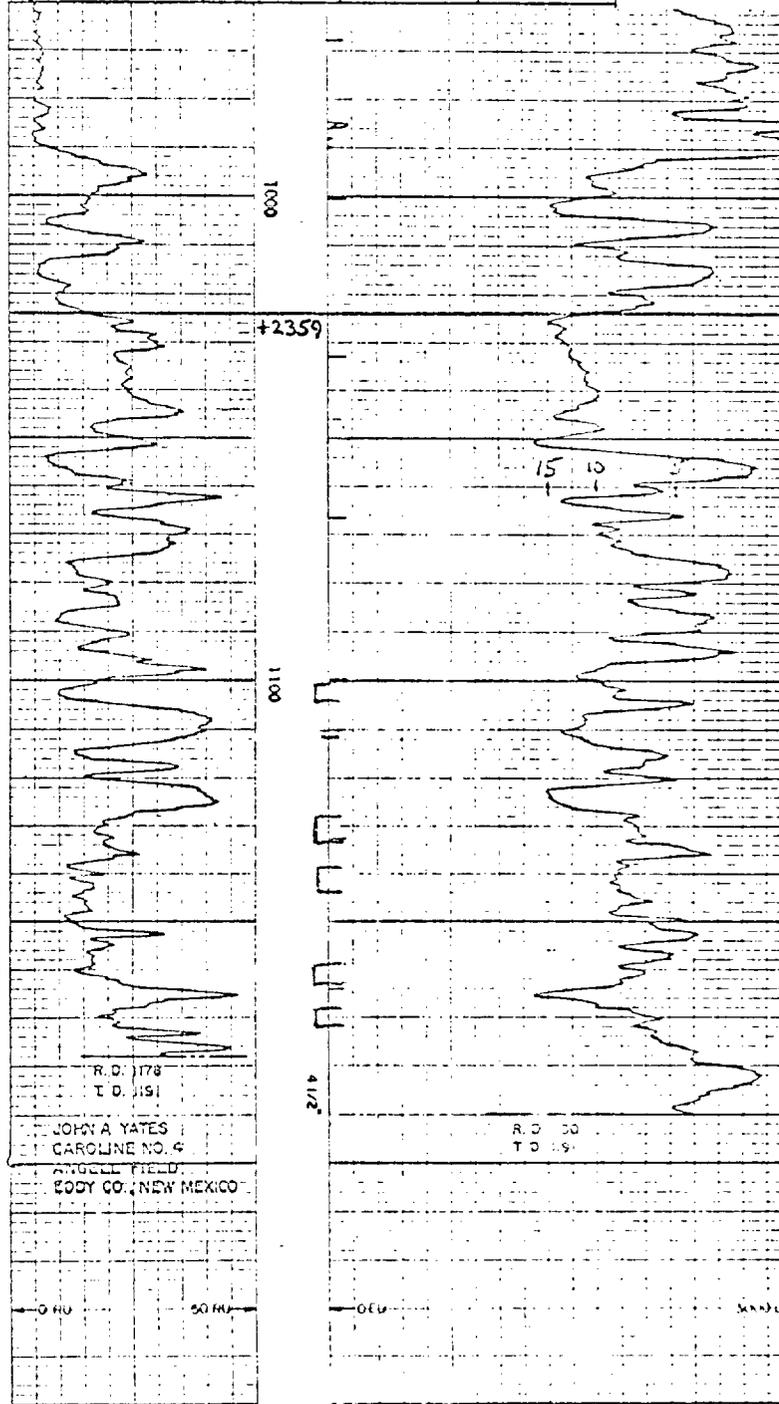


1248' LANE WELLS FIRST READING
 252' LANE WELLS TOTAL DEPTH

FILE NO. _____ COMPANY JOHN A. YATES
 WELL CAROLINE NO. 4
 FIELD ANSELL
 COUNTY EDDY STATE NEW MEXICO
 LOCATION 1650' FNL & 330' FNL
 Other Services

Permanent Datum GROUND LEVEL Elev. _____
 Log Measured from GROUND LEVEL Ft. Above Permanent Datum KB _____
 Drilling Measured from GROUND LEVEL DF 3383
 GL _____

Date	7-23-61
Run No.	ONE
Depth—Driller	252
Depth—Logger	252
Bottom Logged Interval	1248
Top Logged Interval	100
Casing—Driller	227
Casing—Logger	230
Bit Size	CABLE TOOL
Type Fluid in Hole	FRESH WATER OIL
	FULL
Density and Viscosity	
pH and fluid loss	
Source of Sample	PIT
Rm @ Meas. Temp	34 @ 95
Rmc @ Meas. Temp	
Rmc @ Meas. Temp	
Source of Rmf and Rmc	
Rm @ BHT	32 @ 85

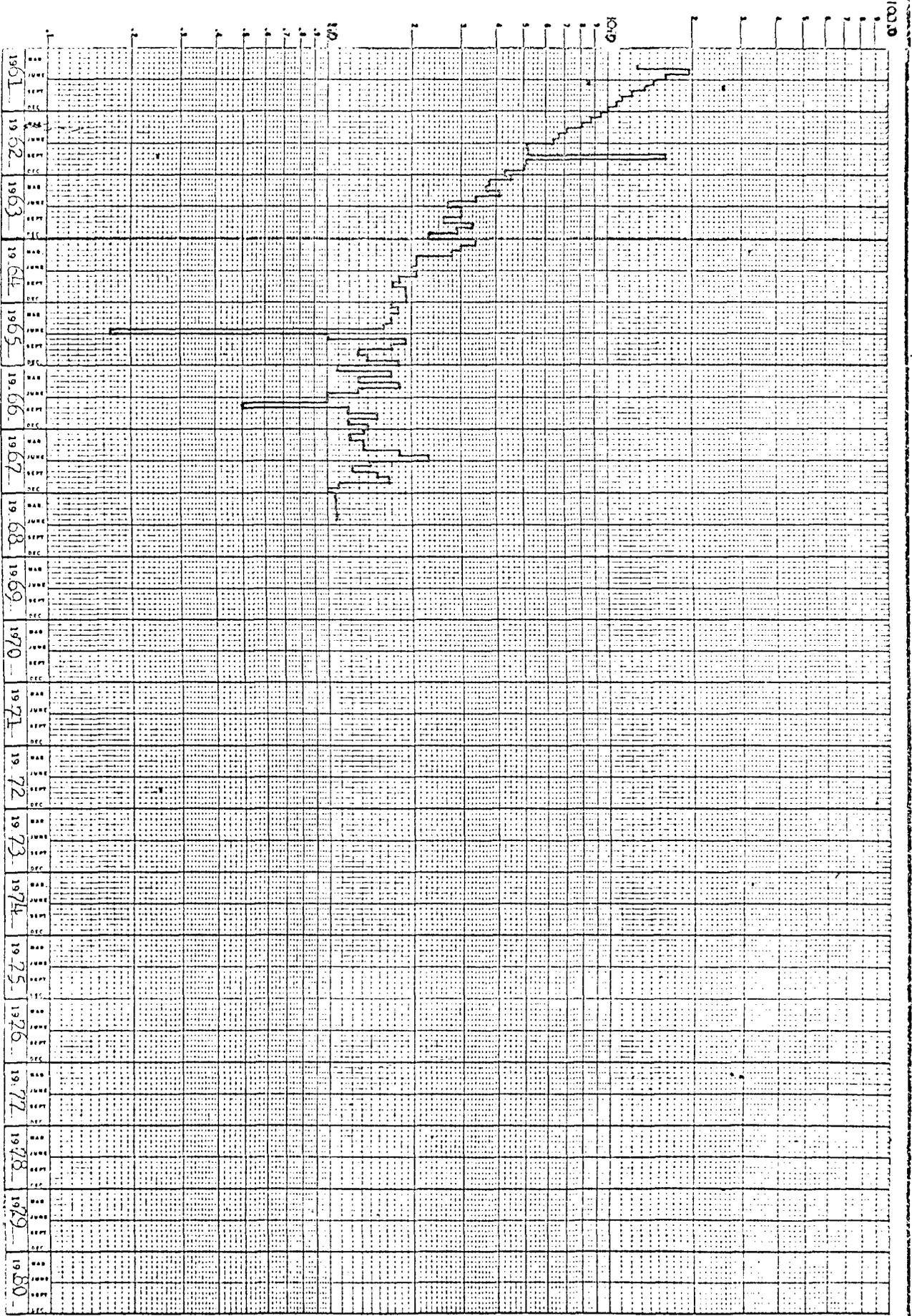


R.D. 178
 T.D. 3151
 JOHN A. YATES
 CAROLINE NO. 4
 ANSELL FIELD
 EDDY CO., NEW MEXICO

0 OHM 50 OHM
 4 1/2"
 R.D. 30
 T.D. 319

Case H208

WATER & OIL PRODUCTION BBL/DAY
WATER INJECTION BBL/DAY



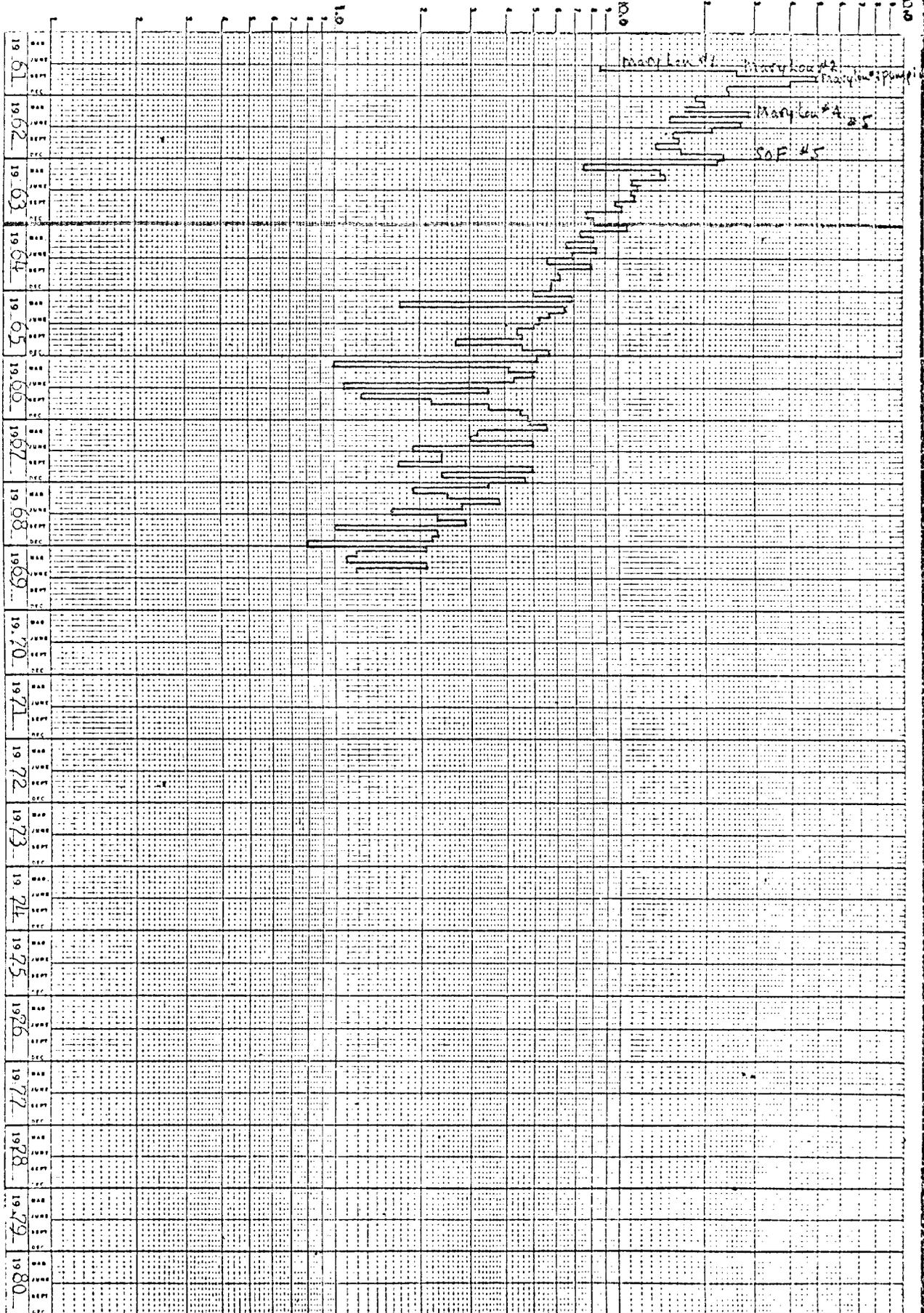
TIME-YEARS

JOHN A. YATES
 PRODUCTION DECLINE CURVE
 HELEN LEASE
 MILMAN EAST (SEVEN RIVERS)

Case 4308

WATER & OIL PRODUCTION BBL/DAY
WATER INJECTION BBL/DAY

TIME - YEARS

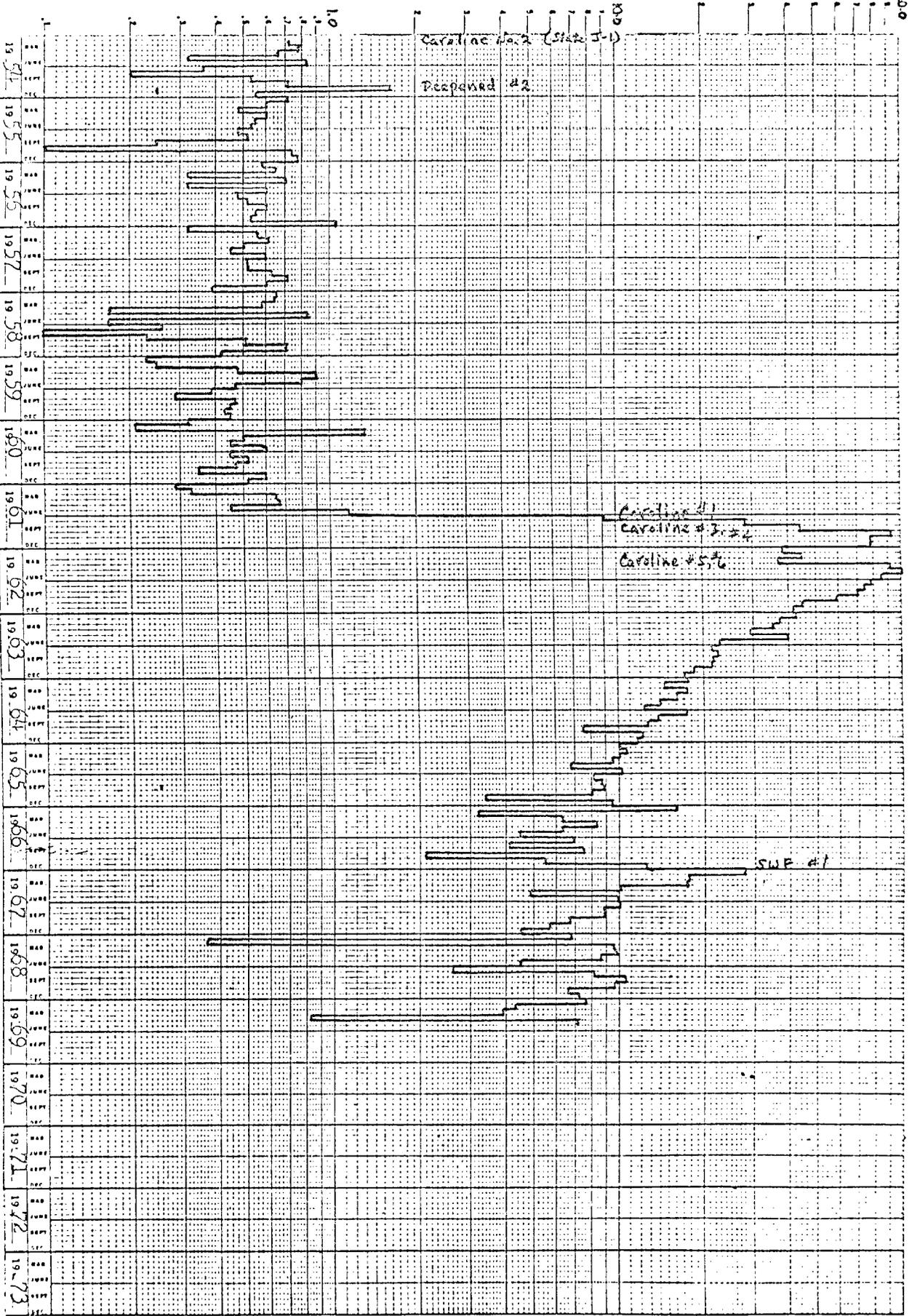


JOHN A. YATES
 PRODUCTION DECLINE CURVE
 MARY LOU LEASE
 MILLMAN EAST (SEVEN RIVERS)

Case 4708

WATER & OIL PRODUCTION BBL/DAY
WATER INJECTION BBL/DAY

TIME - YEARS



JOHN A. YATES

PRODUCTION DECLINE CURVE

CAROLINE LEASE

MILMAN EAST (SEVEN RIVERS)