

North Hardy - Strawn Well Results based on Evolution of Geologic Model

Year Drilled	Well Name	Lithology of "Pay" Interval	Well Result
1998	Hardy 36 #26	Dolomite	High Producer
1999	SEMU 134 SEMU 135 SEMU 136	Dolomite Shale/Dolomite Shale	Low Producer Temporary Abandoned Not Completed
2000	Hardy 36 #27 Meyer B31 #5 D.M. Warren 137 State 25A #3 State "KL" 36 #29 SEMU 139 Meyer B31 #6 State 25 #5	Dolomite Dolomite Dolomite Shale/Dolomite Tight Limestone Dolomite Dolomite/Limestone Spud about November 15	High Producer High Producer High Producer Very Poor Producer P&A High Producer Being Completed

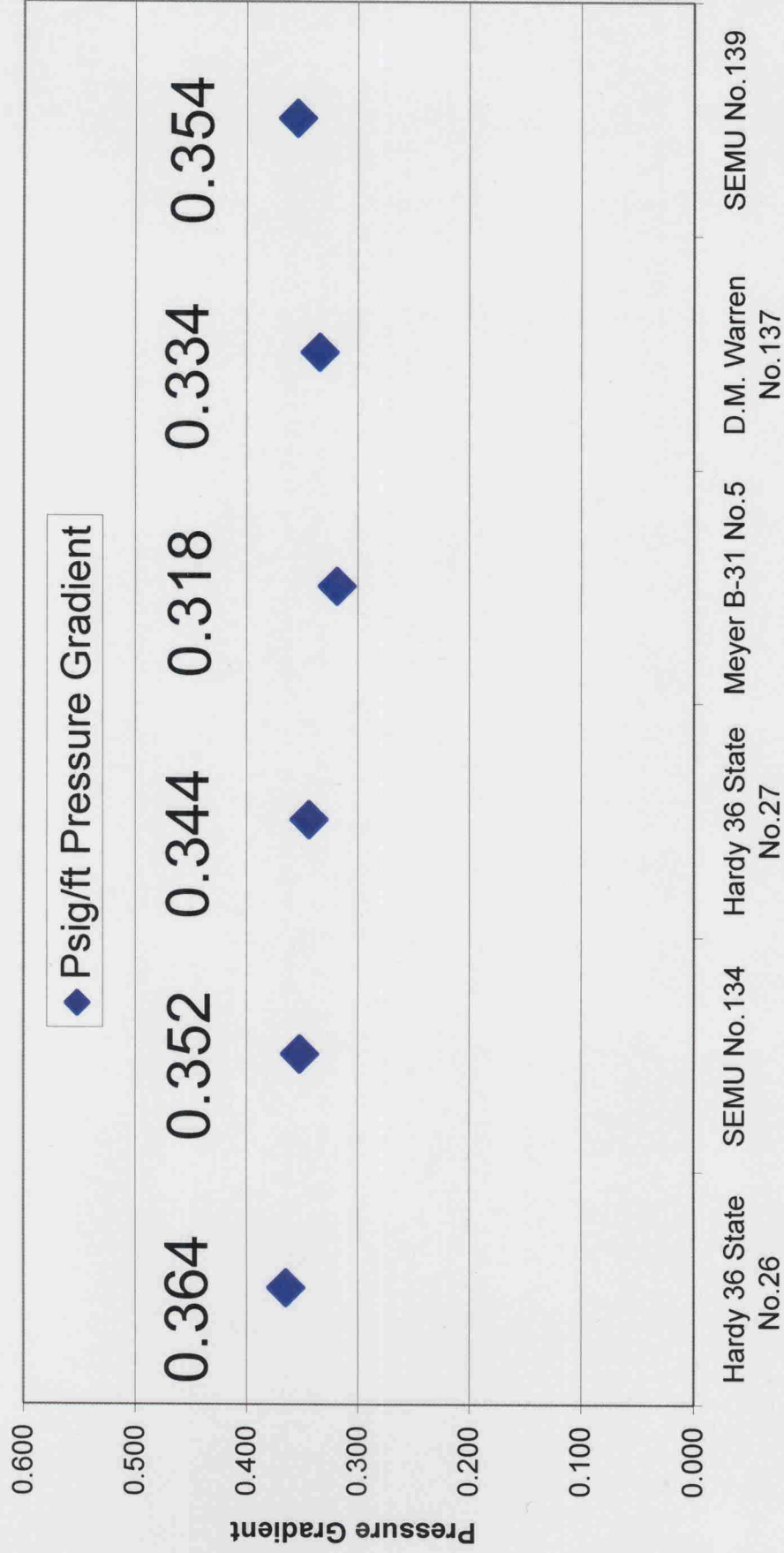
North Hardy Strawn Basic Well and Reservoir Data

Production Characteristics

Well Name	Date Completed	Reservoir Pressure (psig)	Initial Production Rate			GOR (scf/bo)	Oil Gravity (API)	Current Production Method	Production Rate (9-00)			GOR (scf/bo)
			(bopd)	(mcf/d)	(bwpd)				(bopd)	(mcf/d)	(bwpd)	
Hardy 36 State No.26	4/14/98	2808	722 *	778	0	1078	40.0	ESP	912	1005	40	1102
SEMU No.134	9/9/99	2675	158	160	0	1013	41.4	Temp. Abandon	137 **	151	0	1101
SEMU No.135	9/13/99	Tight Reservoir - Failed to Establish Production										
SEMU No.136	Tight Reservoir - Did Not Attempt Completion											
Hardy 36 State No.27	5/6/00	2637	322	443	0	1376	40.6	ESP	237	390	0	1645
Meyer B-31 No.5	5/27/00	2426	420 *	413	0	983	40.4	Flowing	1024	1316	0	1285
D.M. Warren No.137	6/11/00	2557	364 *	365	0	1003	41.0	Flowing	843	749	0	888
State 25A No.3	8/6/00	Would Not Flow. No Build-up	43	45	0	1047	38.2	Beam Pump	8	6	0	750
State "KL" 36 No.29	Tight Reservoir - Did Not Attempt Completion											
SEMU No.139	9/1/00	2667	410 *	399	0	973	40.8	Flowing	1640	1051	0	641

* Initial Rates Restricted prior to Pressure Build-Up
 ** Currently shut-in, but well capable of stated production rate

Bottom Hole Pressure Comparison North Hardy Strawn



Wells listed from left to right in chronological order beginning with discovery well

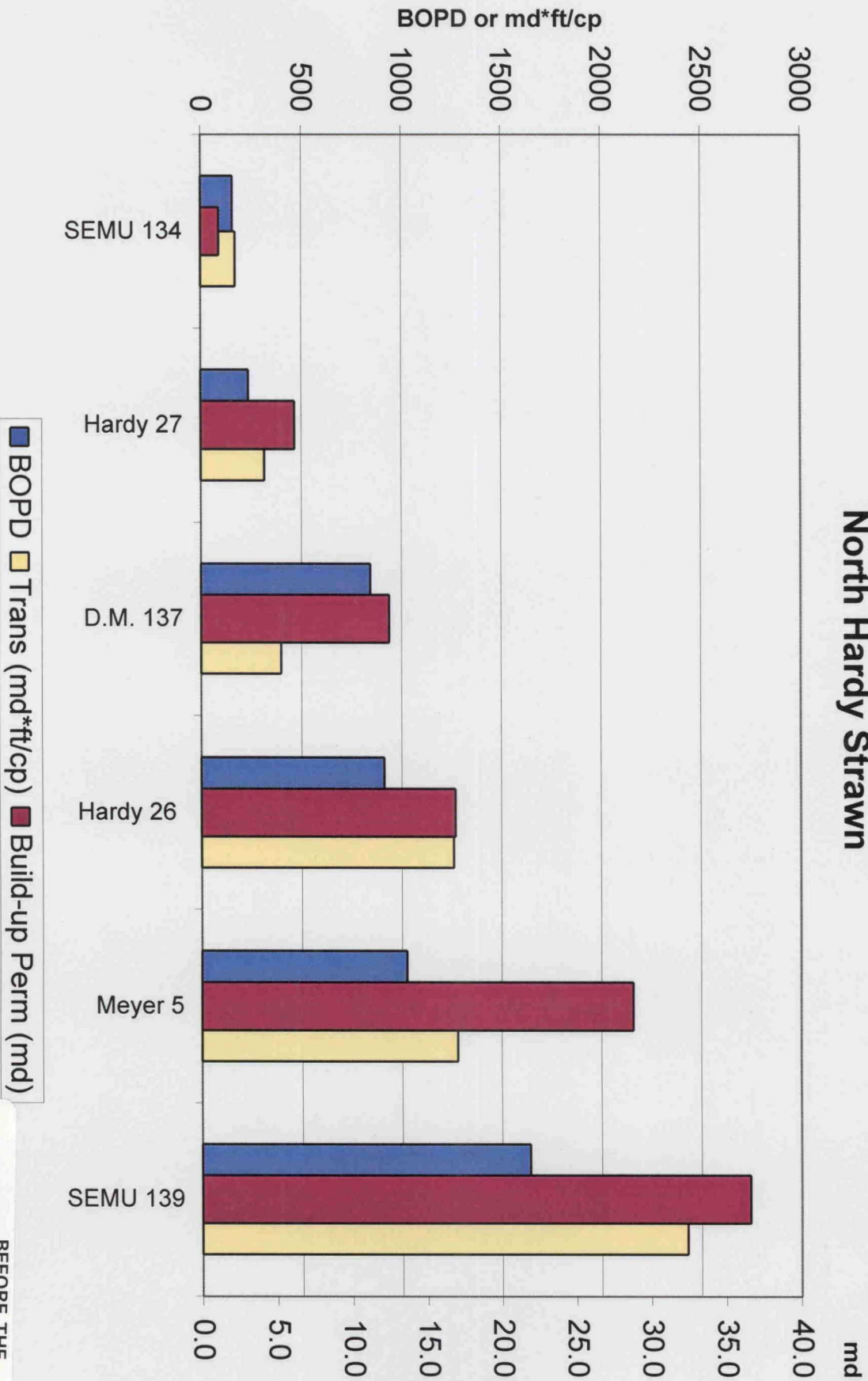
North Hardy Strawn Basic Well and Reservoir Data

Electric Log and Pressure Build-Up Characteristics

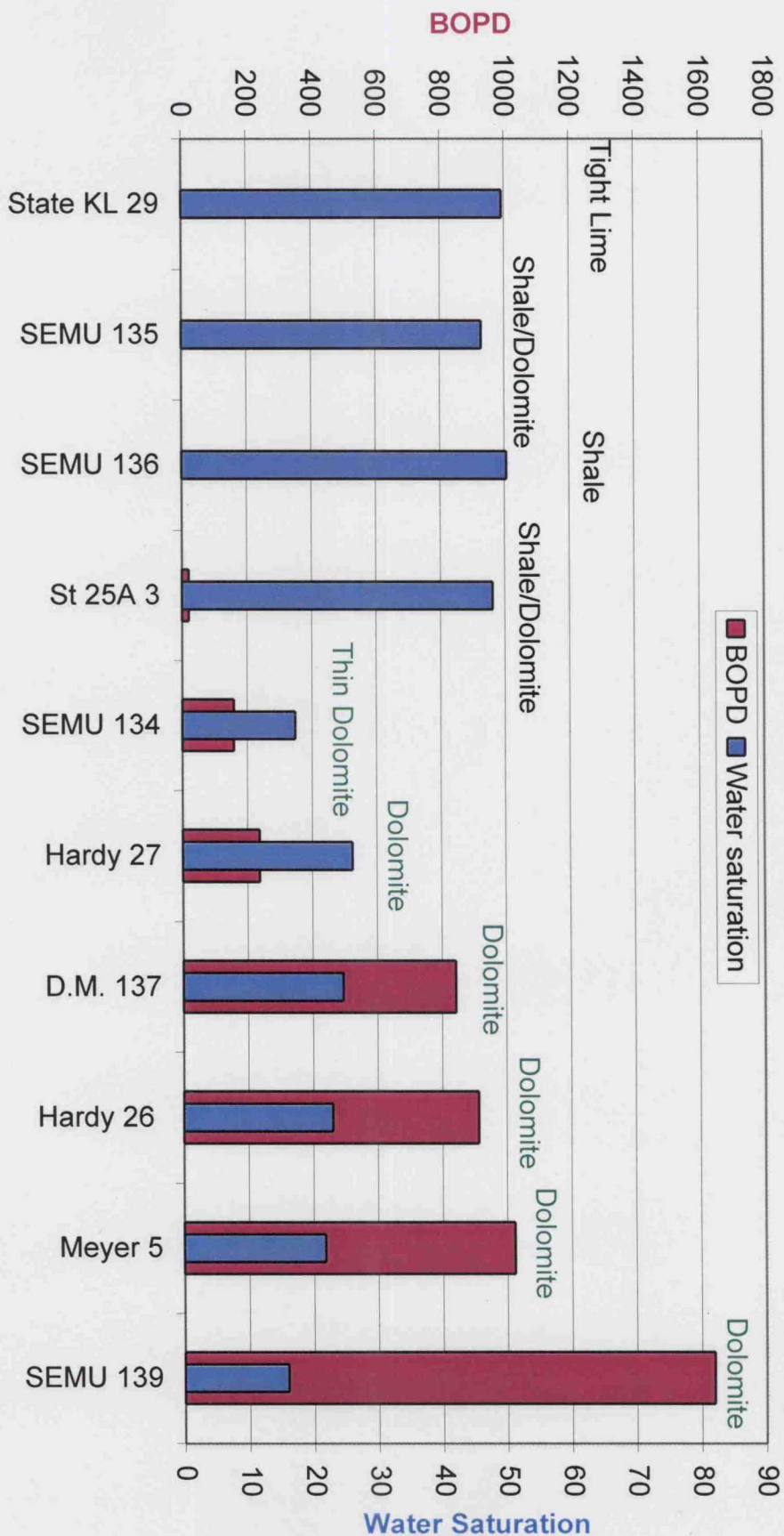
Well Name	Lithology of "Pay" Interval	Thickness (Feet)	Average Porosity (%)	Average Water Saturation (%)	Average Permeability (md)	Completion Skin	Transmissibility (md*ft/cp)	Production Rate (9-00) (bopd) (mcpd)	Drainage Area (acres)
Hardy 36 State No.26	Dolomite	46	9.0	23.0	16.9	-6.4	1259	912 1005 40	190
SEMU No.134	Dolomite	25	9.1	17.1	1.2	-1.6	172	137 * 151 0	80
SEMU No.135	Shale/Dolomite	6	4.4	46.4	Tight Reservoir - No Build-Up Performed			0 0 0	NA
SEMU No.136	Shale	5	4.0	50.3	Tight Reservoir - No Completion Attempted			0 0 0	NA
Hardy 36 State No.27	Dolomite	28	12.4	26.2	6.2	0.8	316	237 390 0	80
Meyer B-31 No.5	Dolomite	27	10.5	29.9	28.8	-3.4	1278	1024 1316 0	189
D.M. Warren No.137	Dolomite	40	14.2	24.7	12.5	-4.0	398	843 749 0	120
State 25A No.3	Shale/Dolomite	12	11.9	48.1	Tight Reservoir - No Build-Up Performed			8 6 0	NA
State "KL" 36 No.29	Tight Lime	4	4.0	49.6	Tight Reservoir - No Completion Attempted			0 0 0	NA
SEMU No.139	Dolomite	39	16.4	16.0	36.6	-4.8	2430	1640 1051 0	120

* Currently shut-in, but well capable of stated production rate

Reservoir Characteristics North Hardy Strawn

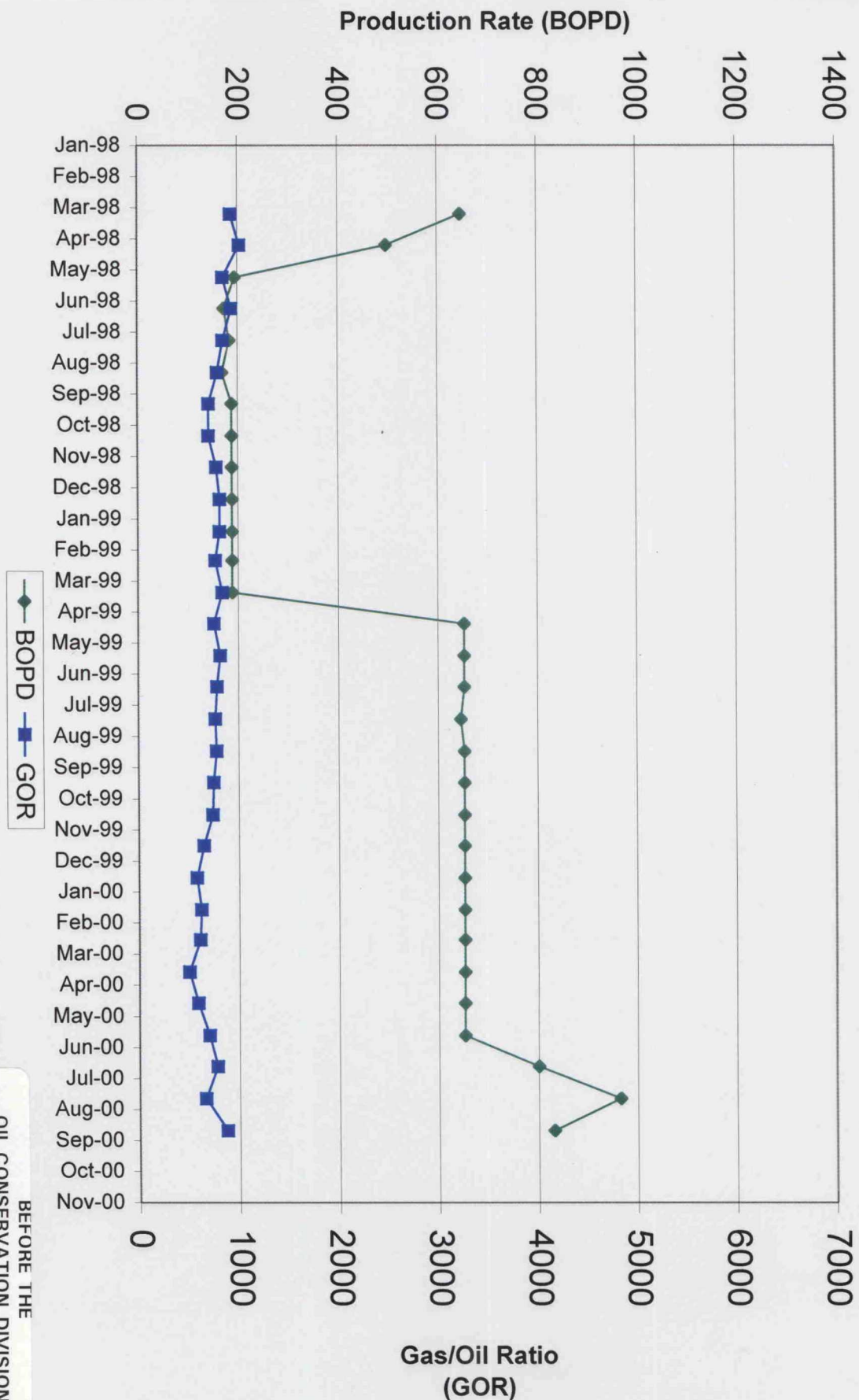


Shale Content and Water Saturation vs Flowrate North Hardy Strawn

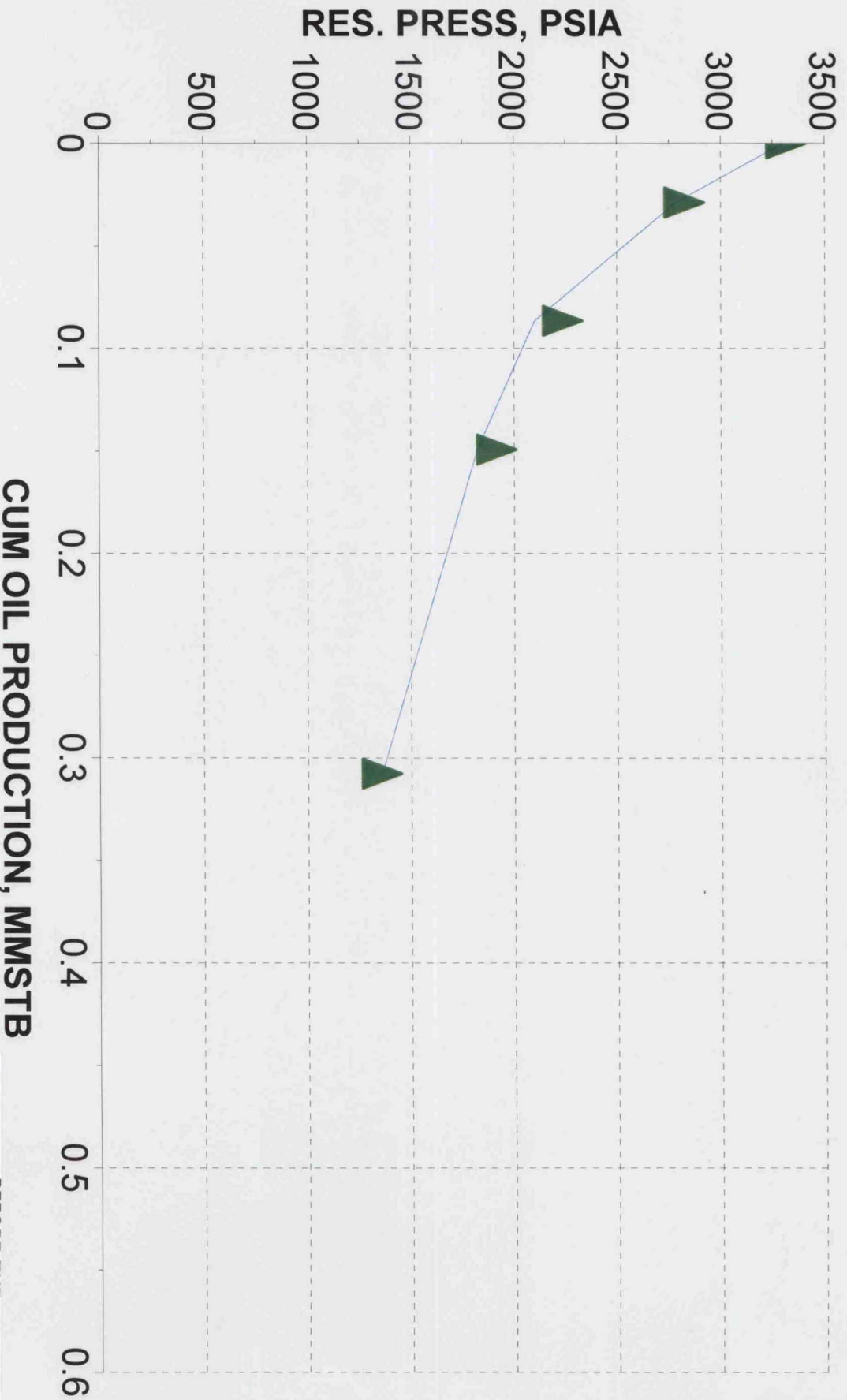


High Flowrates Correspond to Low Shale Content and Low Water Saturations
No Significant Produced Water Volumes encountered in the North Hardy-Strawn to Date.

Hardy 36 State No.26 Production History



Hardy 36 State #26 - North Hardy-Strawn COMPARISON OF PRESSURE MATCHES



▲ OBSERVED DATA
— MODEL PREDICTION

CUM OIL PRODUCTION, MMSTB

RES. PRESS, PSIA

BEFORE THE

OIL CONSERVATION DIVISION

Case #12532⾖ Exhibit No. 14

Submitted By:

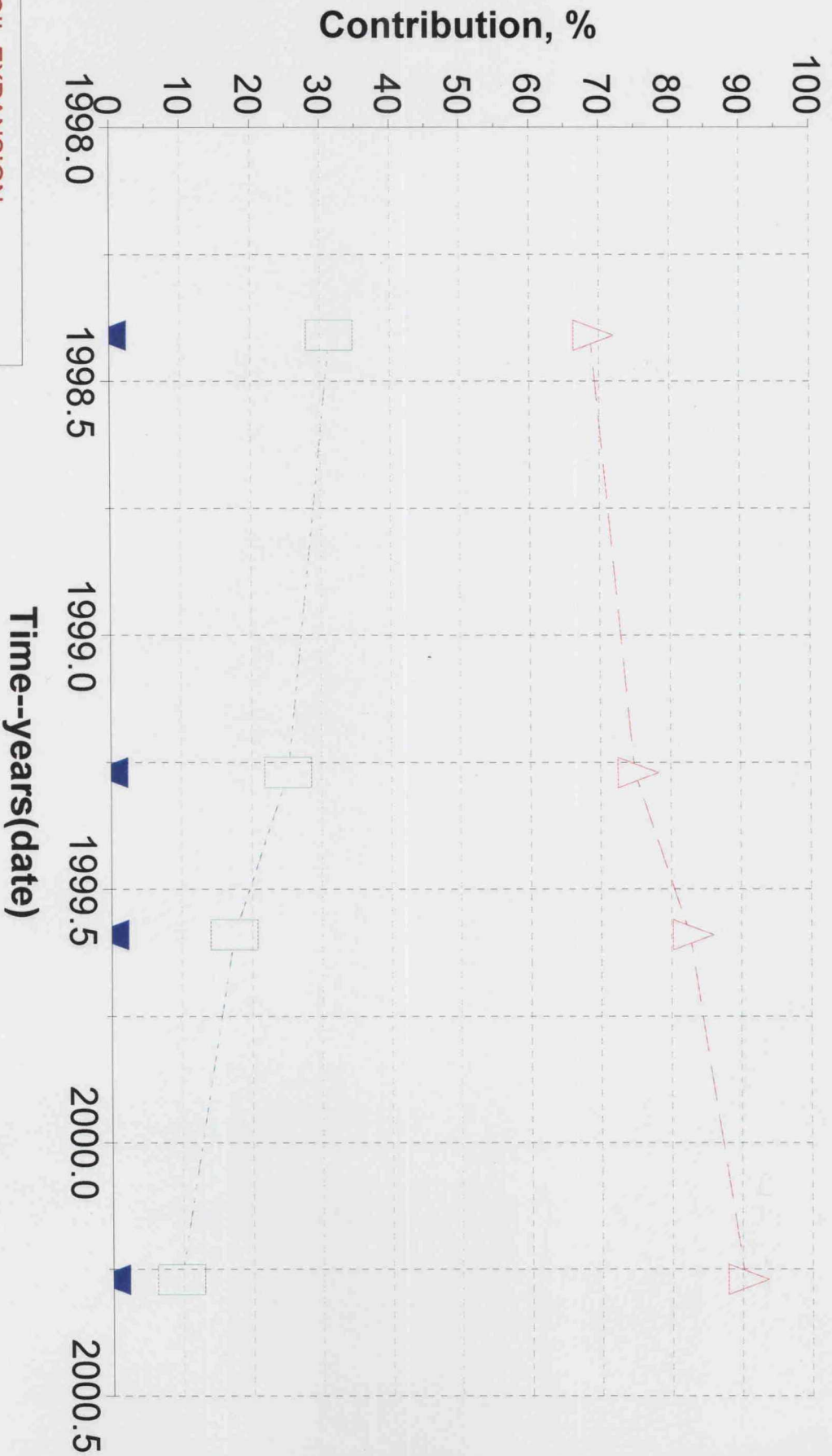
Conoco, Inc.

Hearing Date: November 16, 2000

R

Hardy 36 State #26 - North Hardy-Strawn

Voidage Replacement:- F/E



BEFORE THE

OIL CONSERVATION DIVISION

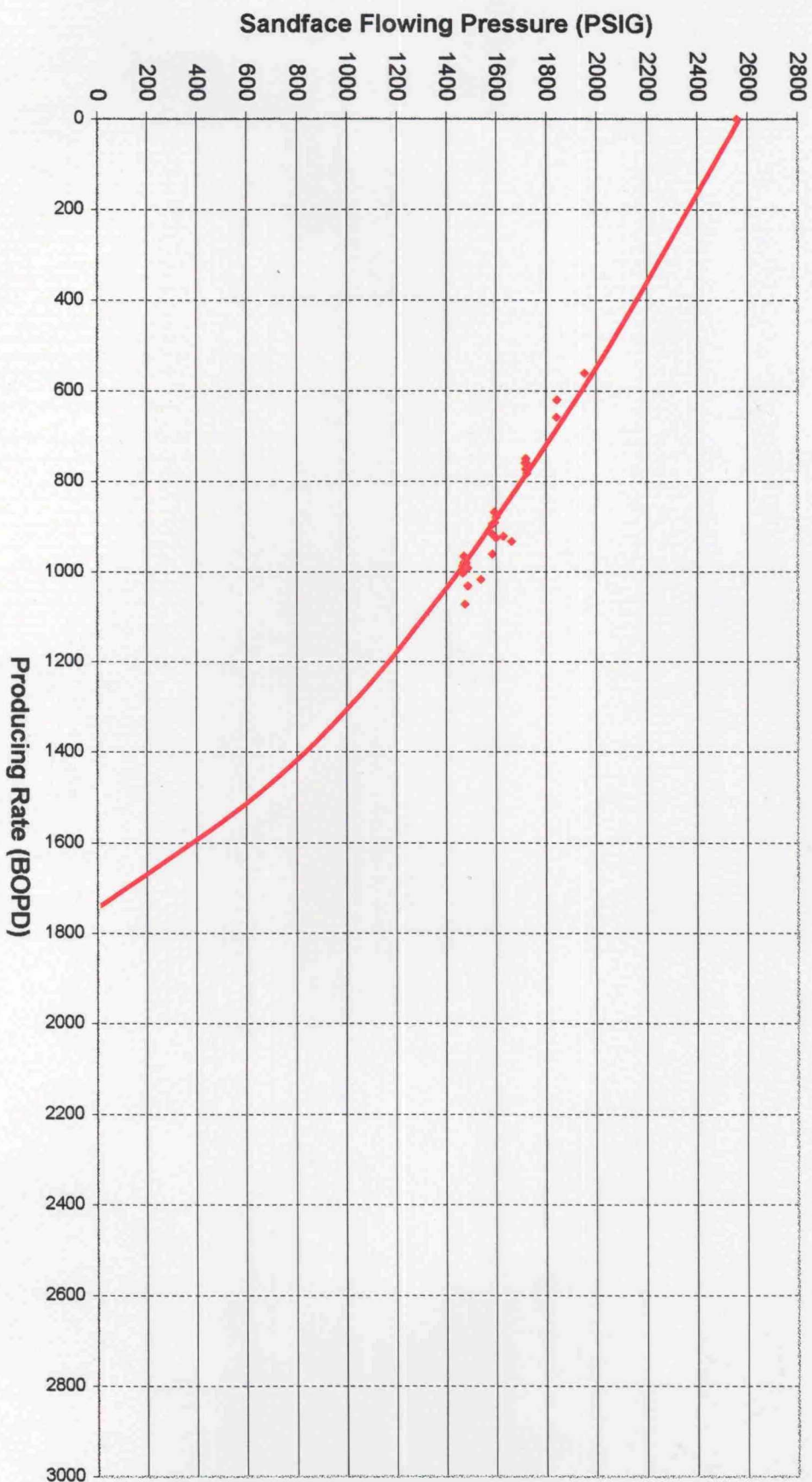
Case #12532⾖ Exhibit No. 15

Submitted By:

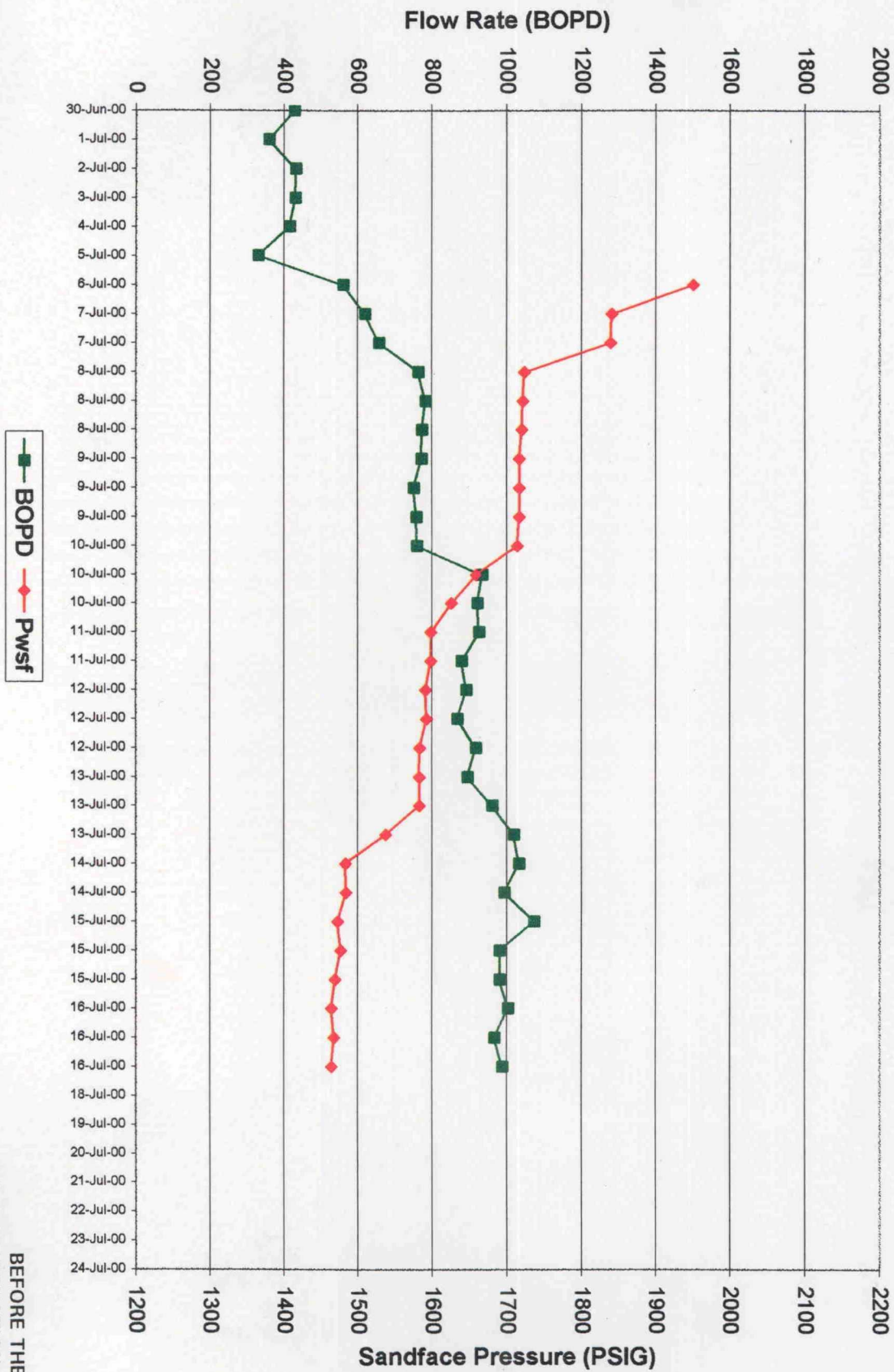
Conoco, Inc.

Hearing Date: November 16, 2000

D. M. Warren No. 137
Strawn Inflow Performance Curve



**D. M. Warren No. 137
Strawn Step Rate Test**



CONOCO - SEE INPUT DEFAULTS

Well PERFORMANCE Analysis

System Graph

(c) 2000

Well: D. M. Warren No. 137
 Loc :
 Desc: Wellflow Analysis Using Step Rate Data
 File: WARREN137.PF2
 Date: 10-24-2000

Type: Oil Well
 Analysis: System Analysis
 Node: Bottom hole

Case 1 Input Data:

Fluid
 Water Cut 0.0000 %
 Oil Grav 41.0 °API
 SG Gas 0.862
 GOR/Yield 900.0 scf/bbl
 SG Water 1.070

Resv - Darcy
 Resv BHP 2557.0 psia
 Resv Temp 110 °F

Vogel Corrected
 Resv Perm 12.5000 md
 Resv Thick 40 ft

Turbulence
 Wellbore Rad 4.000 in
 Resv Rad 1053 ft

Compl- Open Perf
 Perf Intrvl 52 ft
 Perf Density 2.0 SPF

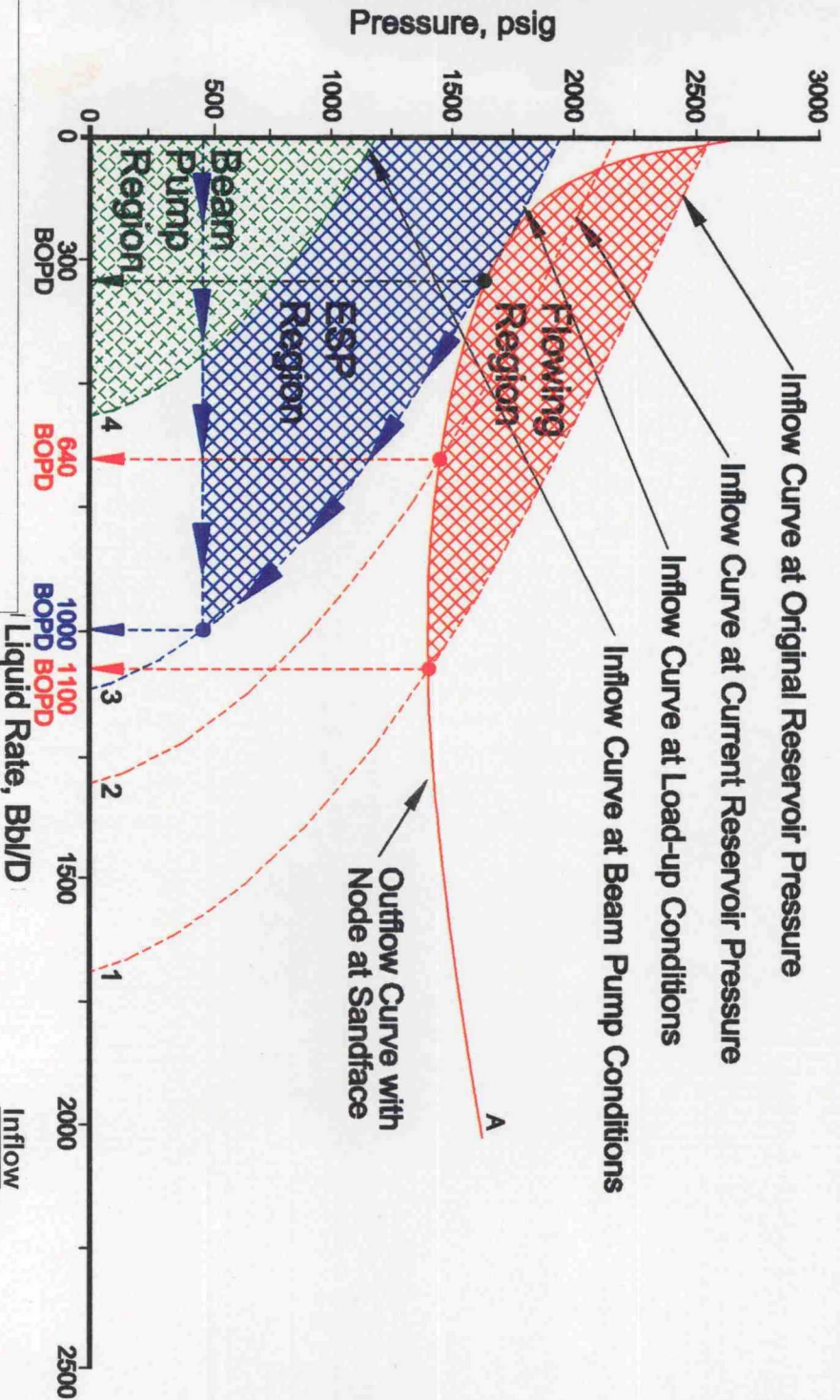
Perf Dia 0.450 in
 Perf Len 24.000 in
 Horz Perm 12.5000 md

KcKf 1.000
 Tbg - Duns & Ros (1963) oil
 WH Press 200.0 psig

Perf Top 7628 ft
 Csg ID 6.366 in
 Tbg ID 2.441 in

Flowln - None Calculated
 WB Heat - Linear Gradient
 WH Temp 100 °F

BEFORE THE
 OIL CONSERVATION DIVISION
 Case #12532⾖ Exhibit No. 18
 Submitted By:
 Conoco, Inc.
 Hearing Date: November 16, 2000



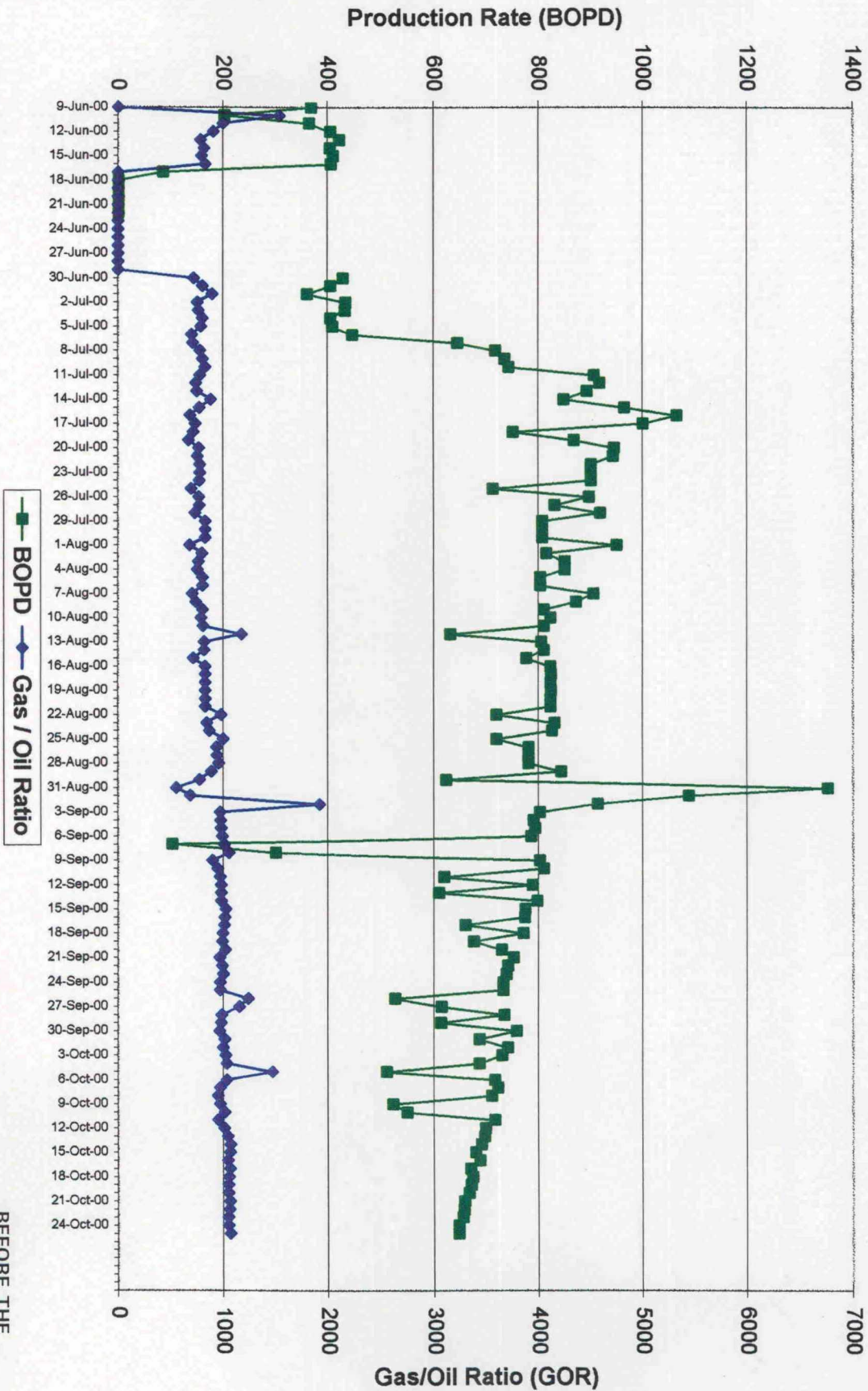
Inflow (1)
 Outflow (A)
 Case 2 (2)
 Case 3 (3)
 Case 4 (4)

Inflow
 Declining reservoir press, psia

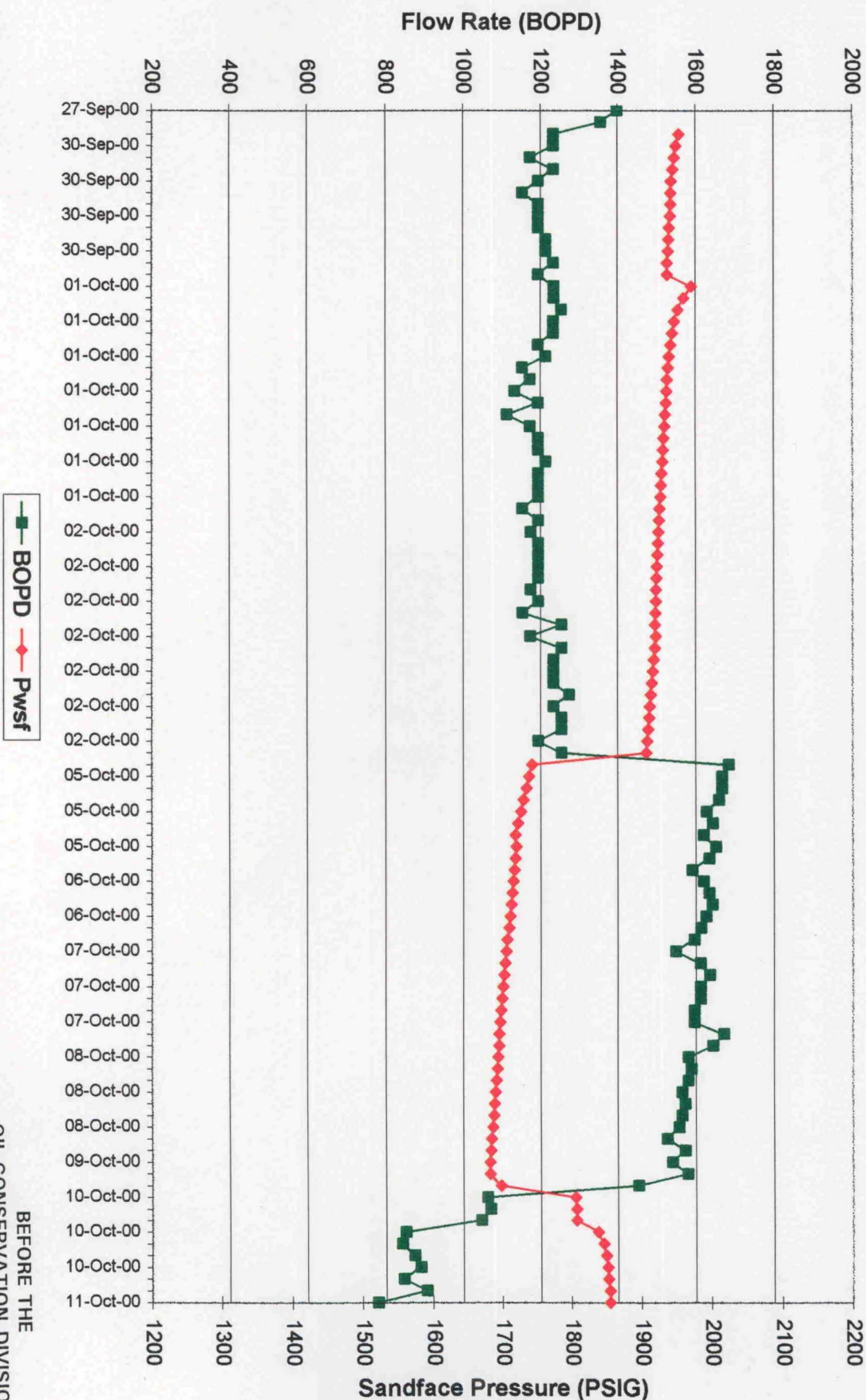
Inflow
 (1) 2557.0
 (2) 2175.0
 (3) 1950.0
 (4) 1200.0

Reg: For Internal Use Only - Conoco

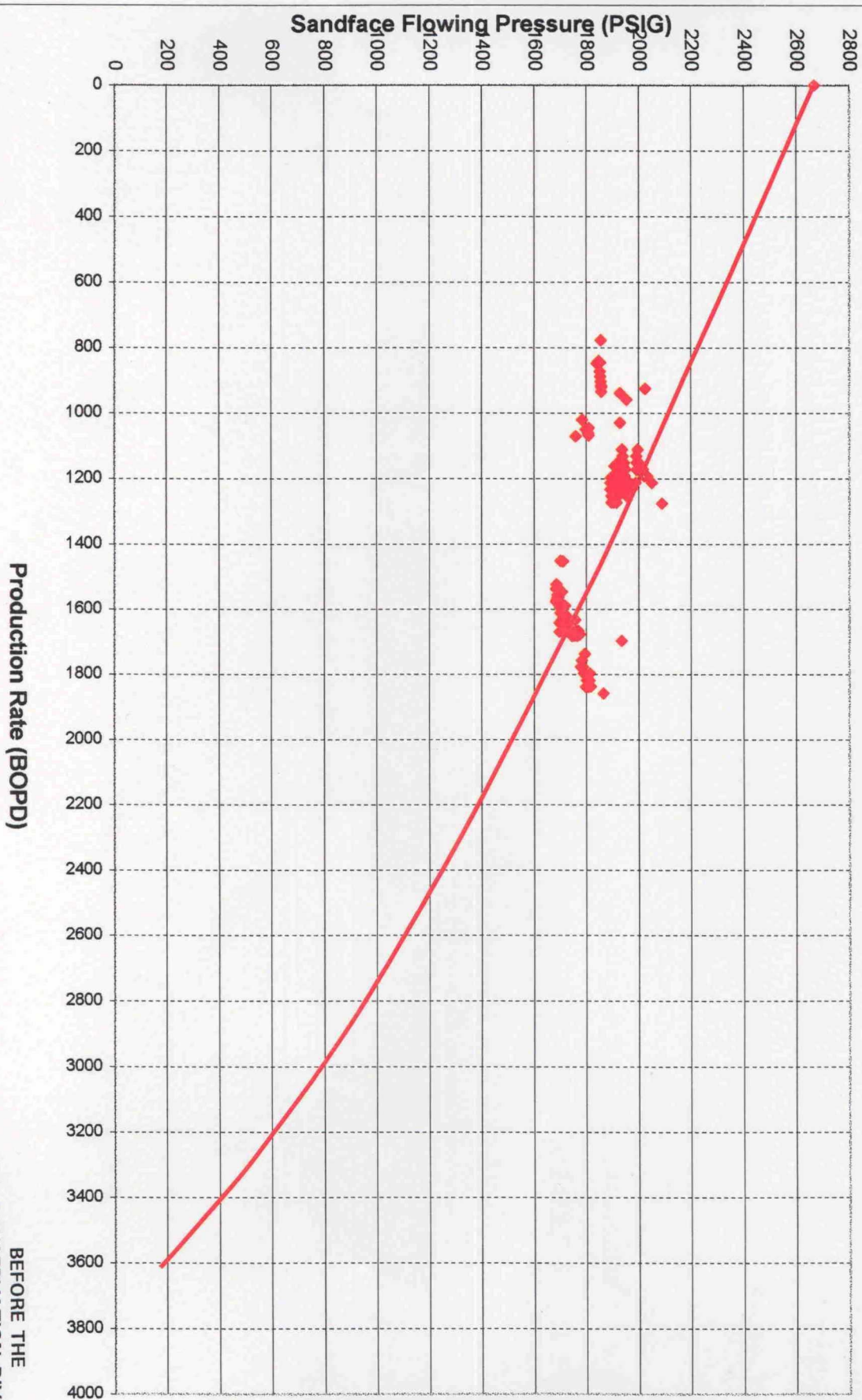
D. M. Warren No. 137
Strawn Production History



SEMUR No. 139
Strawn Step Rate Test



SEMUR No. 139
Strawn Inflow Performance Curve



CONOCO - SEE INPUT DEFAULTS

Well PERFORMANCE Analysis

System Graph

Well: SEMU No. 139
 Loc :
 Desc:
 File: SEMU139.PF2
 (c) 2000

Date: 10-25-2000

Type: Oil Well
 Analysis: System Analysis
 Node: Bottom hole

Case 1 Input Data:

Fluid

Water Cut 0.0000 %
 Oil Grav 41.0 %API
 SG Gas 0.862
 GOR/Yield 700.0 scf/bbl
 SG Water 1.070

Resv - Darcy

Resv BHP 2667.0 psia
 Resv Temp 110 °F

Vogel Corrected

Resv Perm 36.6000 md
 Resv Thick 39 ft
 Resv Skin -3.000

Turbulence 0.000000 l/bpd
 Wellbore Rad 4.000 in
 Resv Rad 1290 ft

Compl - Open Perf

Perf Intvl 58 ft
 Perf Density 2.0 SPF
 Perf Dia 0.450 in
 Perf Len 24.000 in
 Horz Perm 36.6000 md
 KcKf 1.000

Tbq - Duns & Ros (1963) oil

WH Press 200.0 psig
 Perf Top 7628 ft
 Csg ID 6.366 in
 Tbq ID 2.441 in

FlowIn - None Calculated

WB Heat - Linear Gradient
 WH Temp 100 °F

BEFORE THE

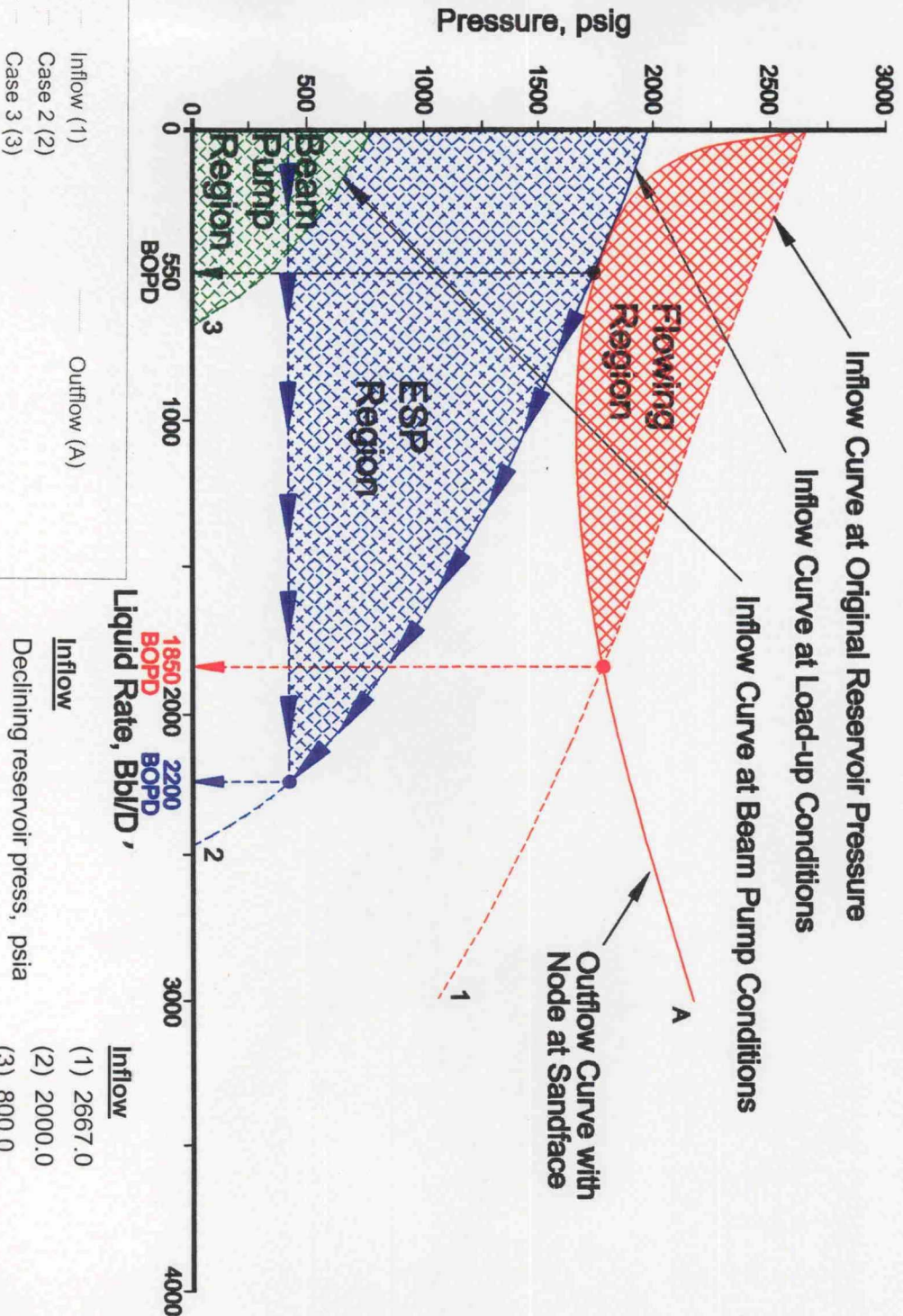
OIL CONSERVATION DIVISION

Case #12532⾖ Exhibit No. 12

Submitted By:

Conoco, Inc.

Hearing Date: November 16, 2000



Inflow (1)
 Case 2 (2)
 Case 3 (3)

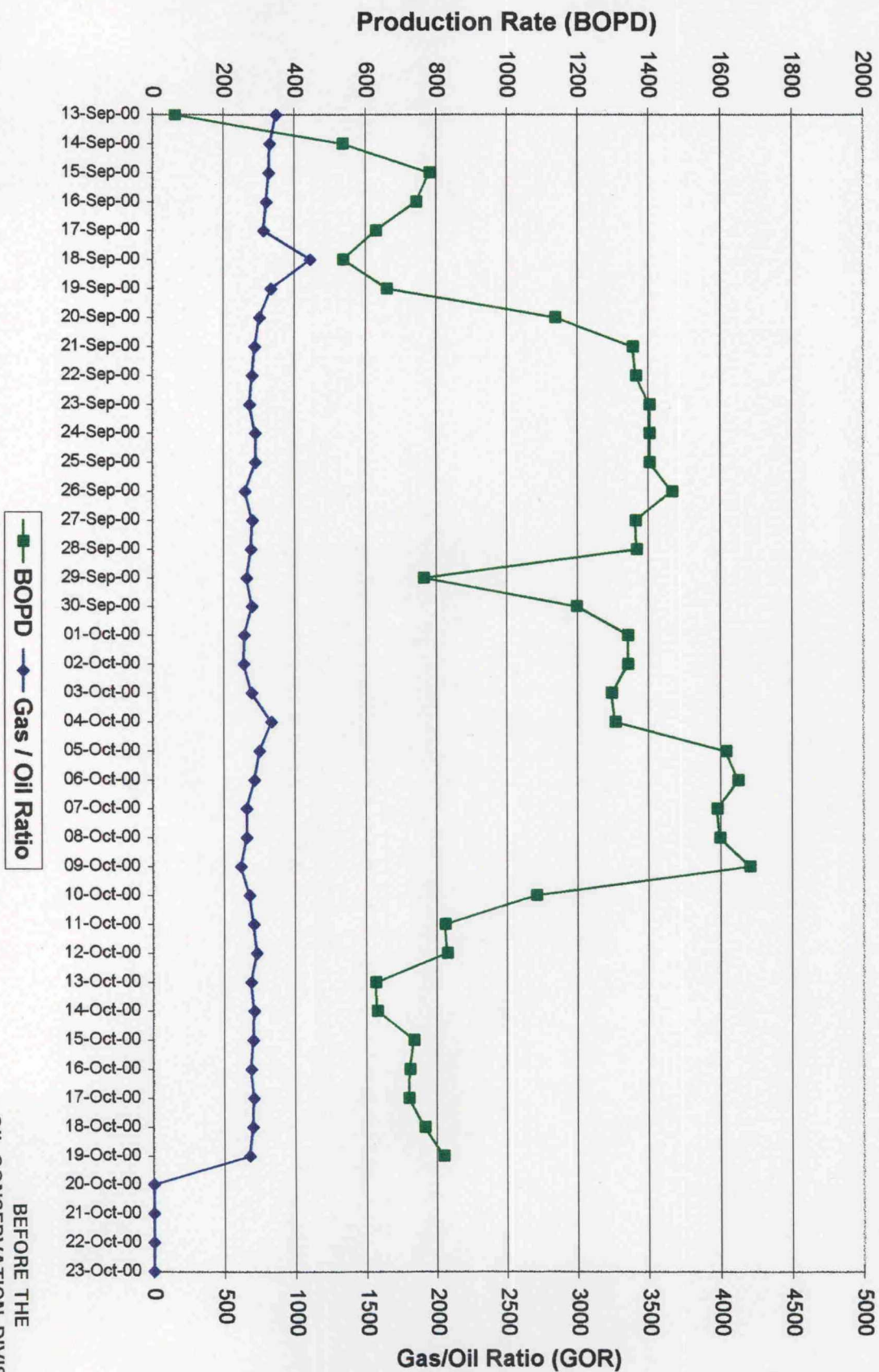
Outflow (A)

Declining reservoir press, psia

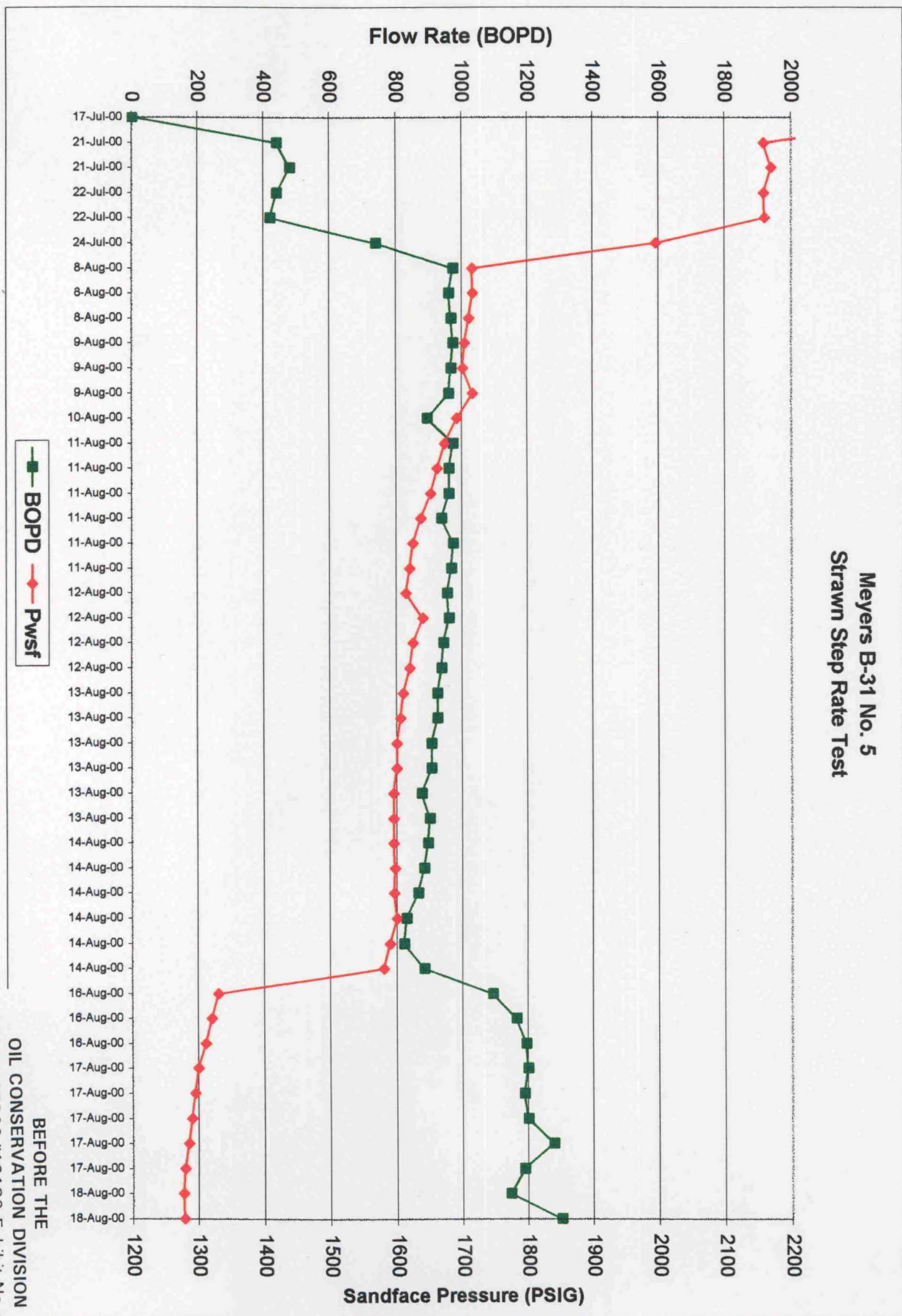
Inflow
 (1) 2667.0
 (2) 2000.0
 (3) 800.0

Reg: For Internal Use Only - Conoco

SEMU No. 139
Strawn Production History



Meyers B-31 No. 5
Strawn Step Rate Test



BEFORE THE

OIL CONSERVATION DIVISION

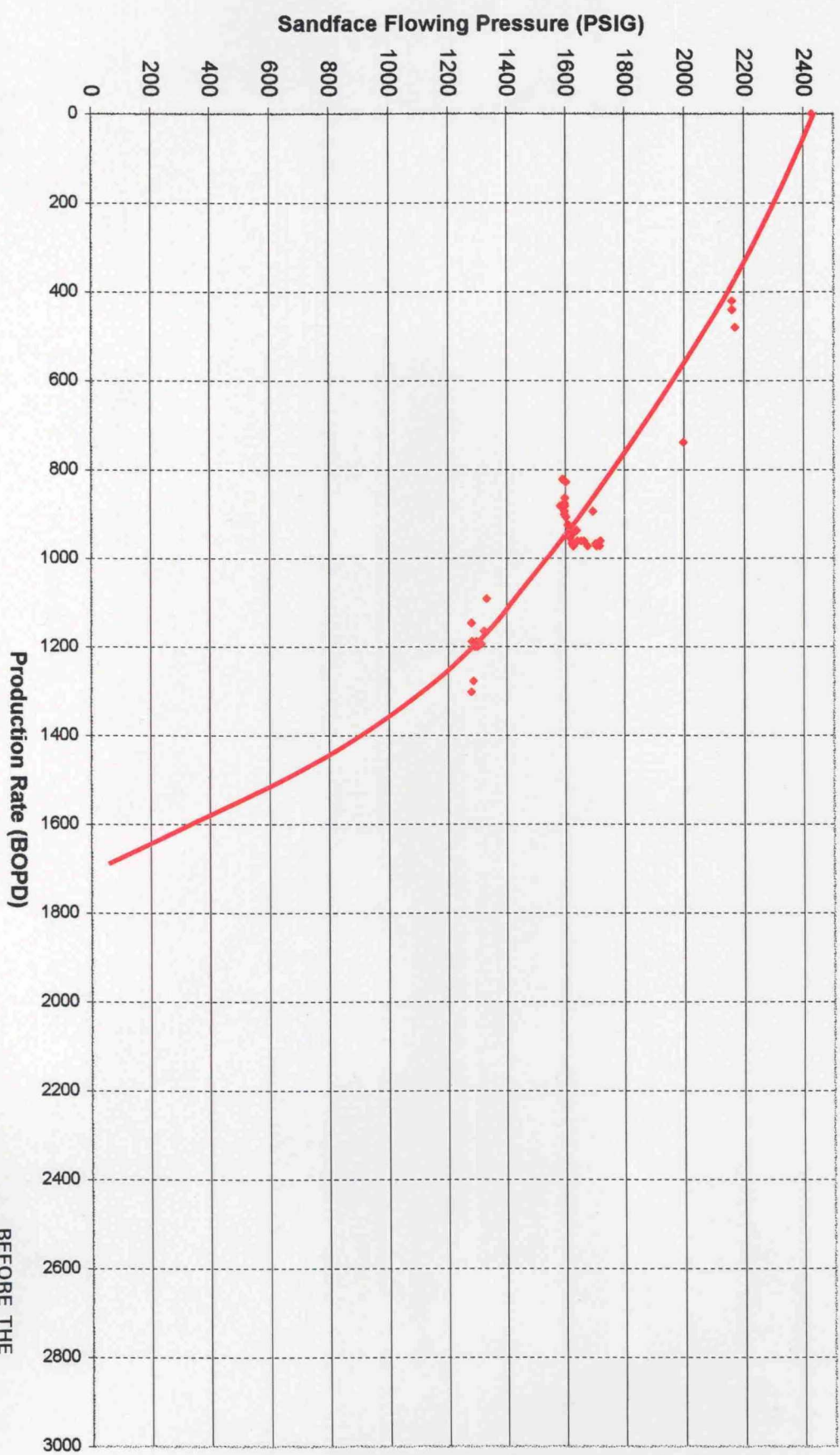
Case #12532⾖ Exhibit No. 34

Submitted By:

Conoco, Inc.

Hearing Date: November 16, 2000

Meyers B-31 No. 5 **Strawn Inflow Performance Curve**



CONOCO

Well PERFORMANCE Analysis

System Graph

(c) 2000

Well: Meyers B-31 No. 5
Loc :
Desc:
File: MEYERB31.PF2

Date: 10-24-2000

Type: Oil Well
Analysis: System Analysis
Node: Bottom hole

Case 1 Input Data:

Fluid	
Water Cut	0.0000 %
Oil Grav	40.4 °API
SG Gas	0.780
GOR/Yield	1400.0 scf/bbl
SG Water	1.070
Resv - Darcy	
Resv BHP	2425.0 psia
Resv Temp	110 °F
Vogel Corrected	
Resv Perm	28.7000 md
Resv Thick	27 ft
Resv Skin	-3.400
Turbulence	0.000000 l/bpd
Wellbore Rad	4.000 in
Resv Rad	1623 ft
Compl- Open Perf	
Perf Intvl	36 ft
Perf Density	2.0 SPF
Perf Dia	0.450 in
Perf Len	24.000 in
Horz Perm	28.7000 md
KcKf	1.000
Tbq - Duns & Ros (1963) oil	
WH Press	200.0 psig
Perf Top	7568 ft
Csg ID	4.892 in
Tbq ID	2.441 in
Flowln - None Calculated	
WB Heat - Linear Gradient	
WH Temp	100 °F

BEFORE THE

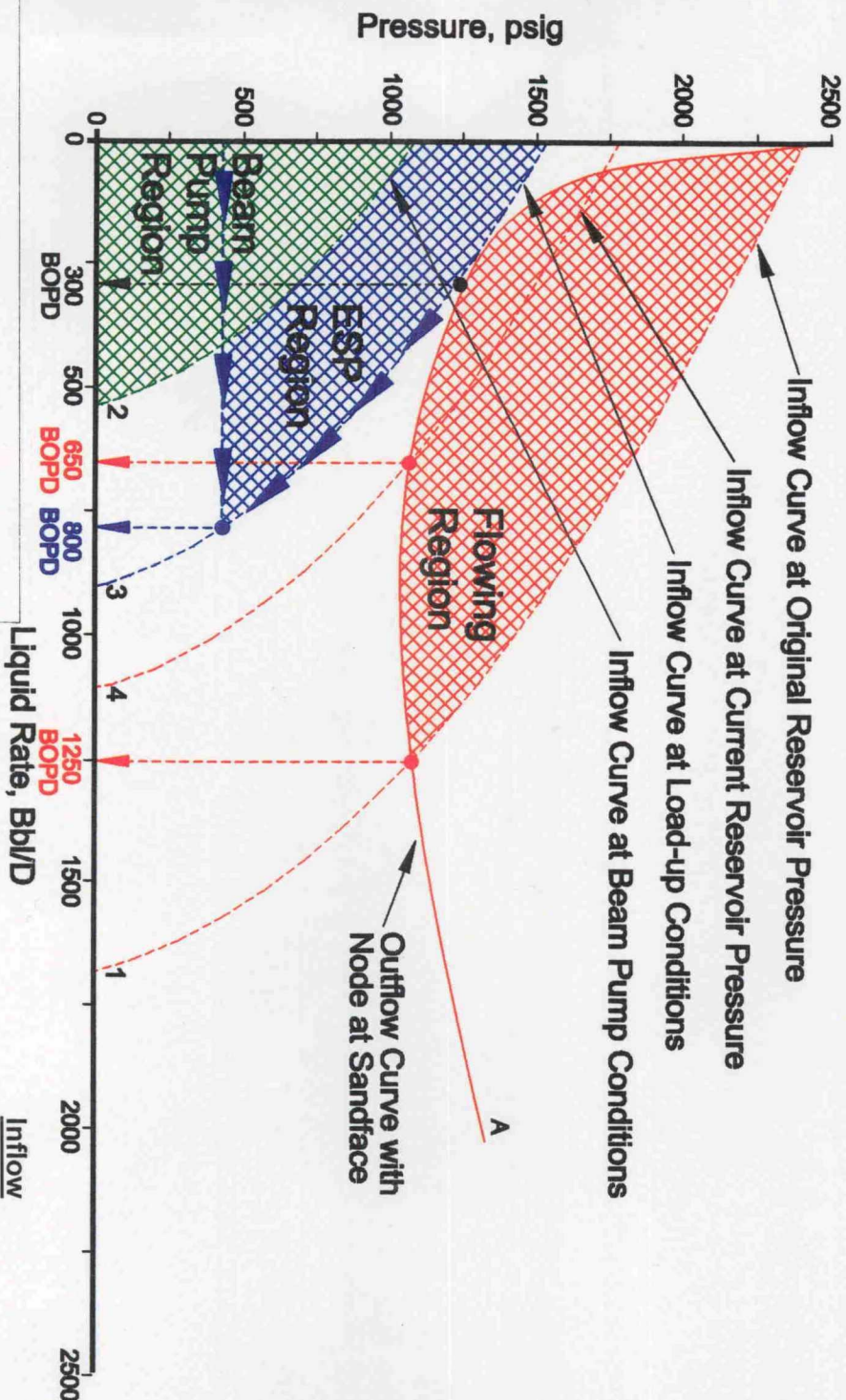
OIL CONSERVATION DIVISION

Case #12532⾖ Exhibit No. 26

Submitted By:

Conoco, Inc.

Hearing Date: November 16, 2000

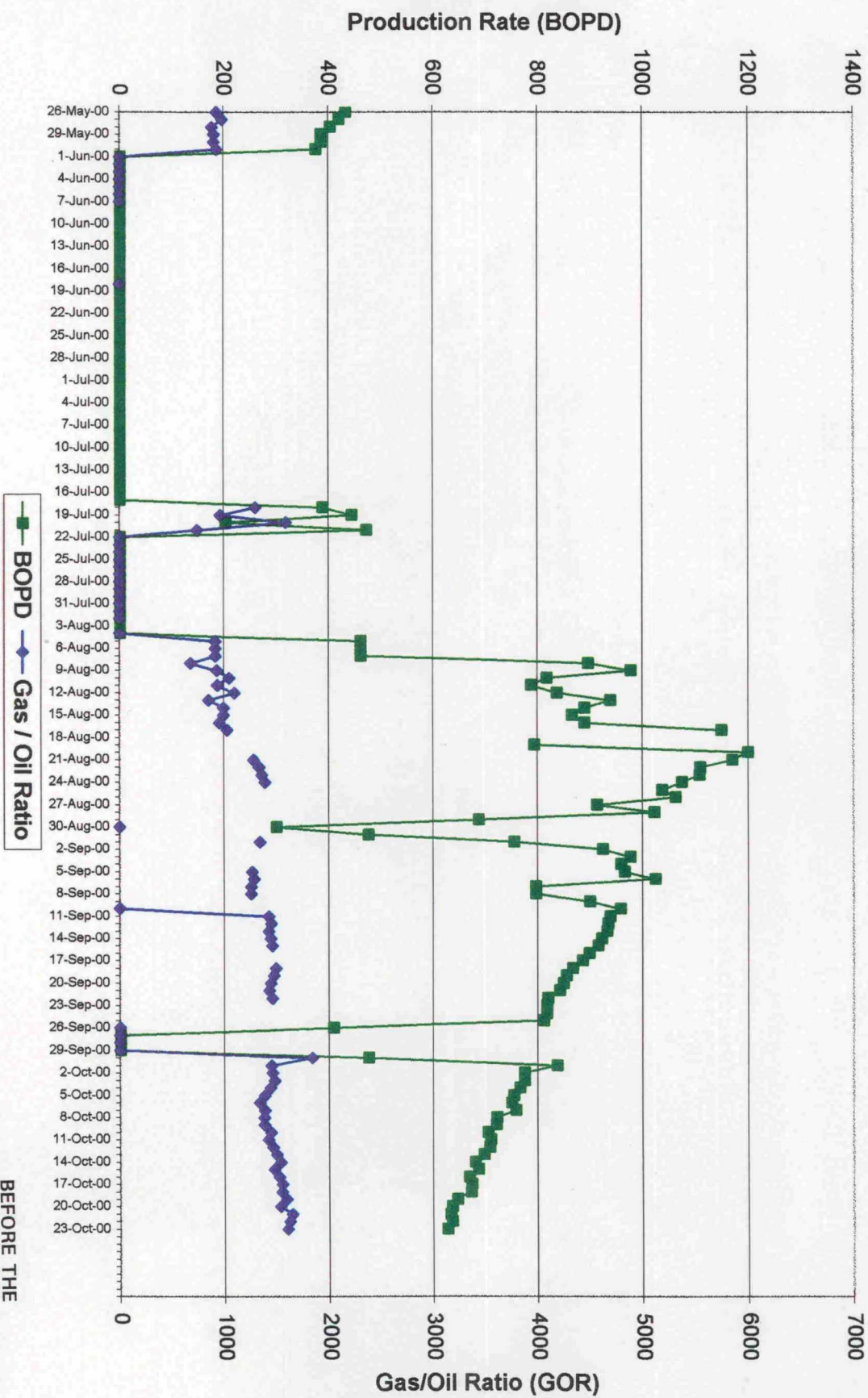


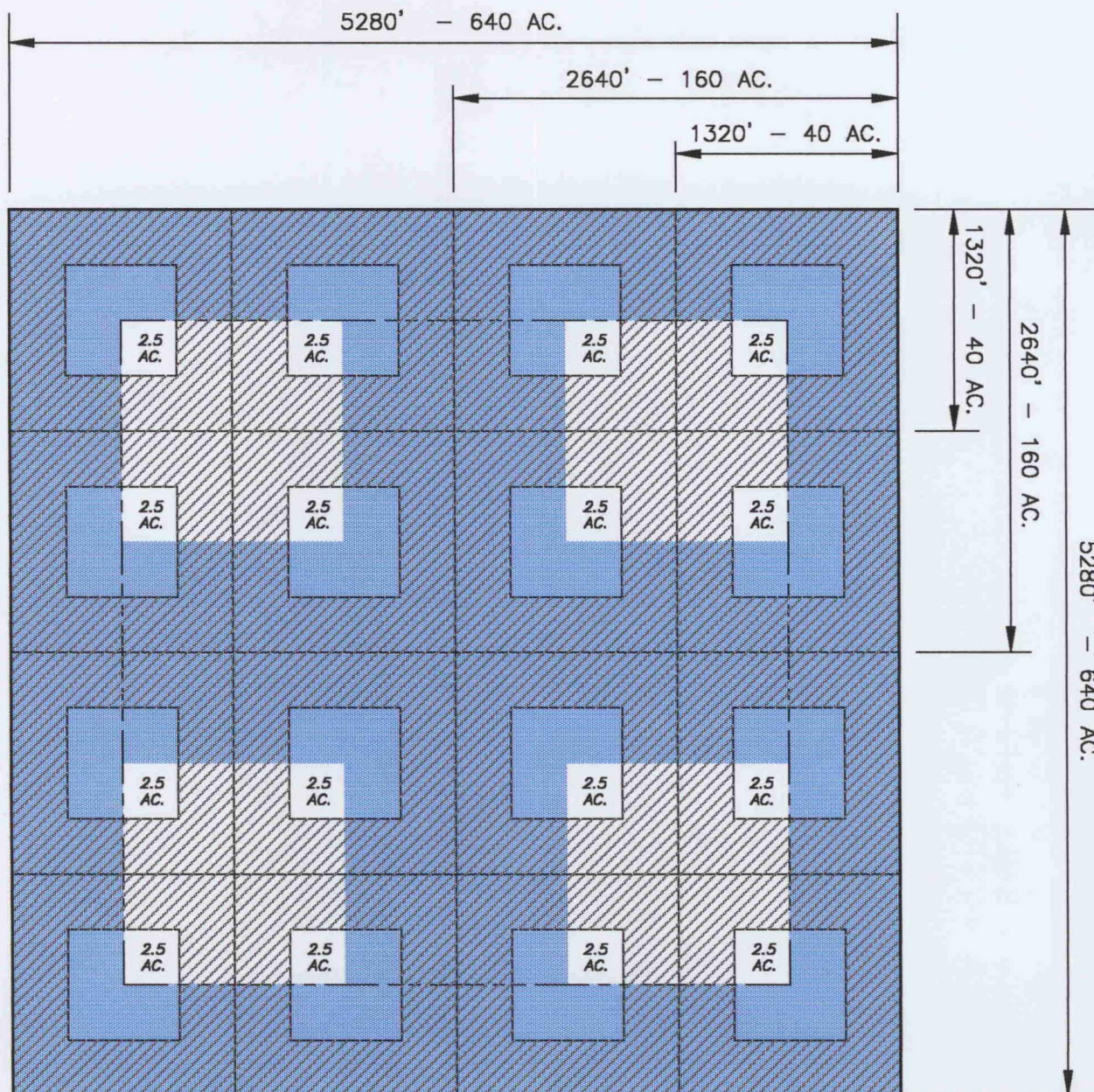
Inflow
Declining reservoir press, psia

Inflow	(1) 2425.0
	(2) 1100.0
	(3) 1550.0
	(4) 1800.0

Reg: For Internal Use Only - Conoco

Meyers B-31 No. 5
Strawn Production History





BEFORE THE
OIL CONSERVATION DIVISION
Case #12532⾖ Exhibit No 28
Submitted By:
Conoco, Inc.
Hearing Date: November 16, 2000

NOTES



STANDARD 660' OFFSET
FROM 160.0 AC. LINE



STANDARD 330' OFFSET
FROM INTERIOR 40 AC.
SUBDIVISION LINES



2.5 AC. ALLOWABLE
SURFACE LOCATION

DATE: 11/10/2000

DRAWN BY: glg

CHECKED BY:

APPROVED BY:

SCALE: 1" = 1000'



EXPLORATION PRODUCTION
AMERICAS

STRAWN
STANDARD 640 AC. SECTION
ALLOWABLE SURFACE LOCATIONS

DRAWING

STRAWN

CONOCO INC. OFFICE
10 DESTA DRIVE WEST
MIDLAND, TEXAS 79705