

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088
SANTA FE, NEW MEXICO 87501Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 10-13-87	
Company McCLELLAN OIL CORP.				Connection AIR			
Pool Pecos Slope Abo				Formation ABO			
Completion Date 10/11/87		Total Depth 4680'		Plug Back TD 4650'		Elevation 3732'	
Csg. Size 4 1/2"		Wt. 10.5		Set At 4650'		Perforations: From 4333 To 4475	
Thg. Size 2-3/8		Wt. 4.7		Set At 4300		Perforations: From OPEN To ENDED	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE				Packer Set At NONE		Farm or Lease Name PENJACK	
Producing Thru TUBING		Reservoir Temp. °F 60°		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2	
L		H		Gg .649		Prover Meter Run 3	
				% CO ₂		% N ₂	
				% H ₂ S		Taps PIPE	
FLOW DATA						TUBING DATA	
CASING DATA						Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.
SI							915
1.	3		1.75	146	205	26	860
2.	3		1.75	149	45	28	800
3.	3		1.75	148	55	38	731
4.	3		1.75	153	85	40	650
5.							
RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	15.50	57.13	159.2	1.0344	1.2413	1.02	1249
2	15.50	85.43	162.2	1.0323	1.2413	1.02	1853
3	15.50	94.16	161.2	1.0218	1.2413	1.02	2034
4	15.50	118.86	166.2	1.0198	1.2413	1.02	2563
5							
NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.		
1					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.		
2					Specific Gravity Separator Gas _____ X X X X X X X X		
3					Specific Gravity Flowing Fluid _____ X X X X X		
4					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.		
5					Critical Temperature _____ R _____ R		
P _c 1023.2 P _c ² 1046.9					(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 4.68$		
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.94$		
1		985.2	970.6	76.3	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 7544$		
2		952.2	906.9	140.4			
3		939.2	881.9	165.0			
4		907.2	823.0	223.9			
5							
Absolute Open Flow 7544 Mcfd @ 15.025					Angle of Slope 55		Slope, n .70
Remarks: BOTTOM HOLE PRESSURES RECORDED W/AMERADA TYPE GAUGE.							
Approved By Division		Conducted By: KELTIC SERVICES		Calculated By: M. KELLY		Checked By:	

McClellan OIL CORP

PENJACK #4

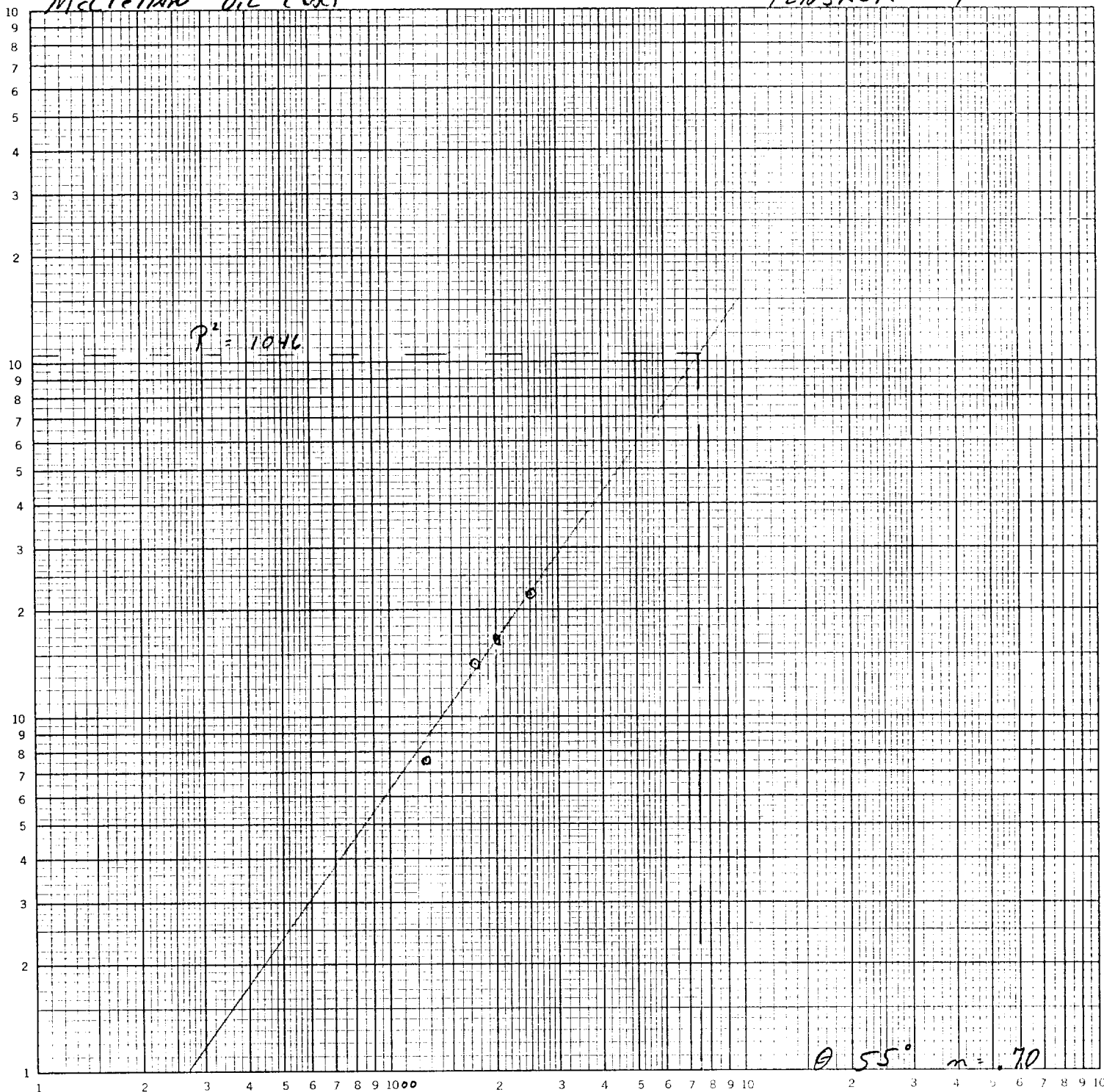
$P^2 - P^2_{cor}$ 7400

$P^2 = 1046$

KE LOGARITHMIC 3 X 3 CYCLES
KEUFFEL & ESSER CO. MADE IN U.S.A.

$\theta = 55^\circ$ $n = .70$

Q
MSCFPD



KELTIC SERVICES INC

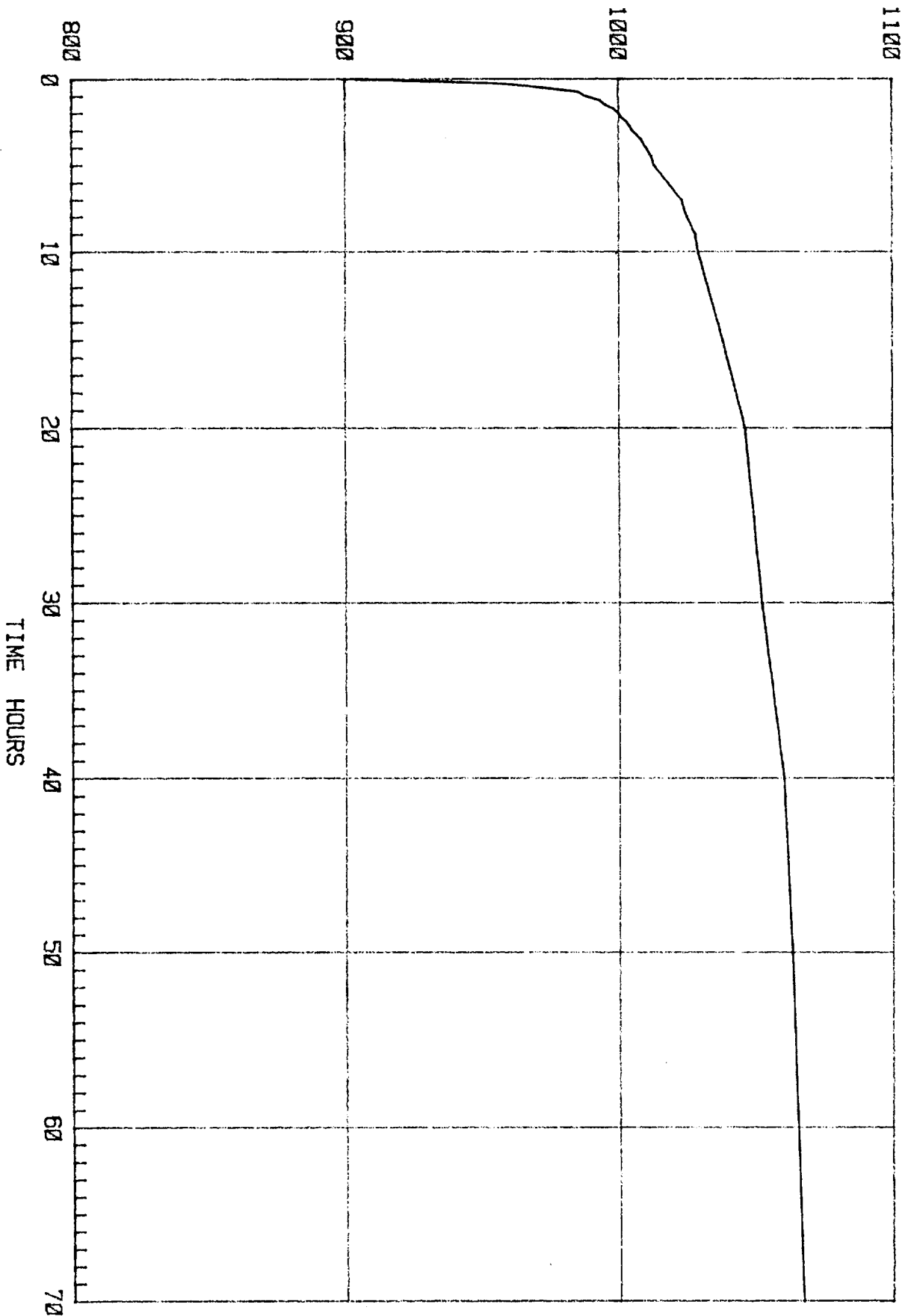
COMPANY McCLELLAN OIL CORP
LEASE PENJACK
FIELD NA
DEPTH 4300 FEET
TUBING PRESSURE 915 PSIG
BOMB NUMBER 033
TIME IN 10/13 1500

DATE 10/13-16/87
WELL NUMBER .#4
FORMATION ABO
CASING PRESSURE 910 PSIG
OPERATOR MIKE
TIME OUT 10/16 1300

TIME	HOURS	PRESSURE	PSIA
0.00		904.20	
.25		957.20	
.50		972.20	
.75		985.20	
1.00		988.20	
1.25		993.20	
1.50		995.20	
1.75		998.20	
2.00		1000.20	
2.25		1001.20	
2.50		1003.20	
2.75		1004.20	
3.00		1005.20	
3.50		1008.20	
4.00		1010.20	
4.50		1012.20	
5.00		1013.20	
6.00		1018.20	
7.00		1023.20	
8.00		1025.20	
9.00		1028.20	
10.00		1029.20	
15.00		1038.20	
20.00		1046.20	
30.00		1052.20	
40.00		1060.20	
50.00		1063.20	
60.00		1065.20	
70.00		1067.20	

THANK YOU

PRESSURE PSIA



McCLELLAN OIL CORP

PENJACK. #4

10/13-16/87

KELTIC SERVICES