

NEW XICO OIL CONSERVATION COMMISSIC
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
 Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 2-18-69			
Company TEXACO Inc.				Connection TEXACO Inc.					
Pool Paducah North Delaware				Formation Delaware				Unit	
Completion Date 12-29-68		Total Depth 4870		Plug Back TD 4868		Elevation 3501		Farm or Lease Name Cotton Draw Unit	
Coq. Size 1.5	Wt. 9.5	d 4.091	Set At 4870	Perforations: From 4768 To 4778		Well No. 73			
Tbg. Size 2.375	Wt. 4.70	d 1.995	Set At 4597	Perforations: From --- To ---		Unit A	Sac. 4	Twp. 25S	Rge. 32E
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 4597		County Lea	
Producing Thru Tubing		Reservoir Temp. °F 560 @ 4597		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico	
L 4597	H 4597	G _g 0.826	% CO ₂	% N ₂	% H ₂ S	Prover	Meter Run 2"	Taps Flange	

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.	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI							1671		Packer	---	72 plus
1.	2	x	0.875	564	11.6	60	1632	60			1
2.	"	x	"	565	16.0	60	1589	60			1
3.	"	x	"	567	51.8	60	1499	60			1
4.	"	x	"	570	96.0	60	1374	60			1
5.											

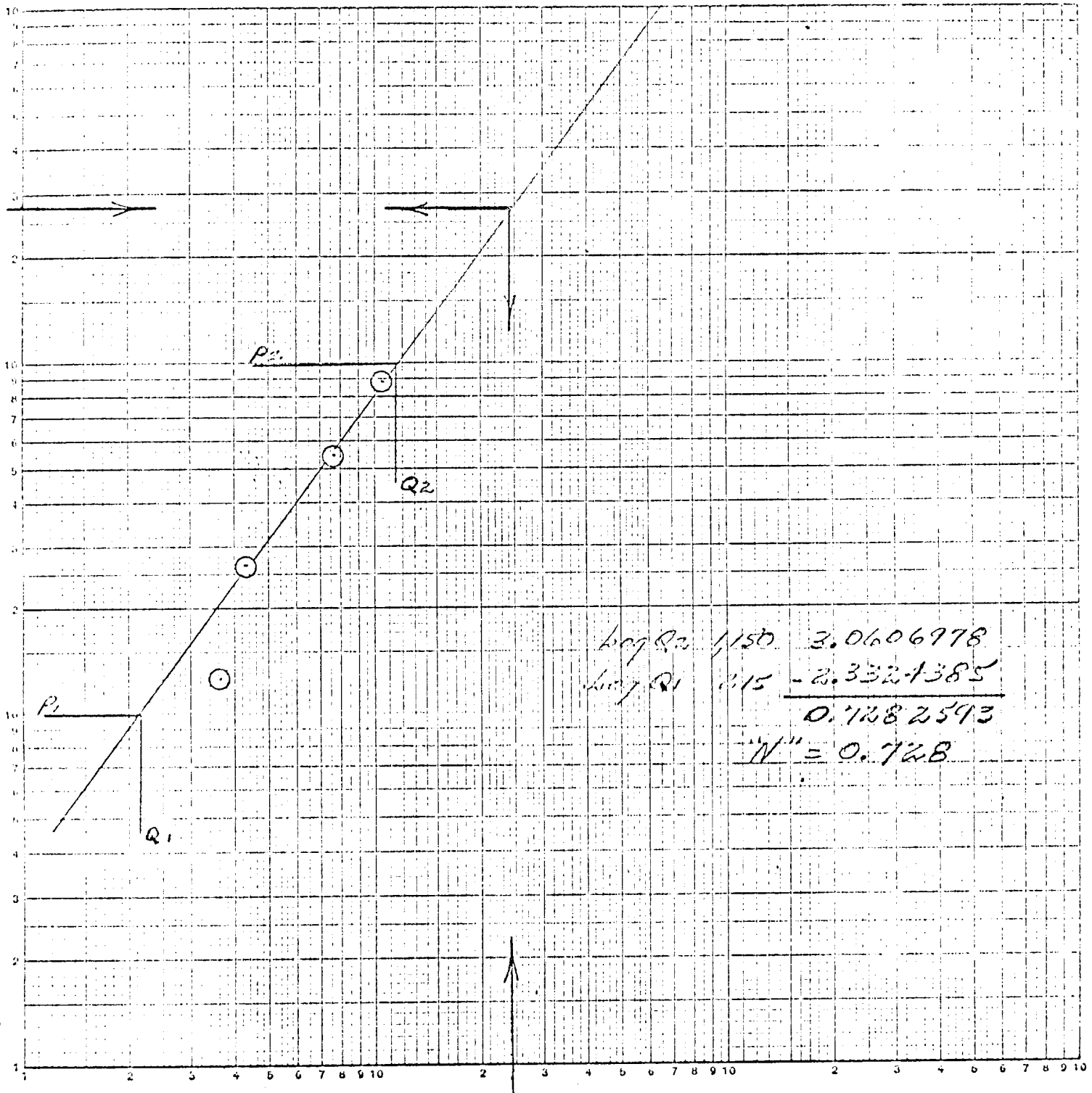
RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	3.729	81.83	577.2	1.000	1.100	1.080	363
2	3.729	97.97	578.2	1.000	1.100	1.080	434
3	3.729	173.37	580.2	1.000	1.100	1.080	768
4	3.729	236.62	583.2	1.000	1.100	1.081	1049
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Dry _____ Mcf/bbl.
1	.877	520	1.30	1.080	A.P.I. Gravity of Liquid Hydrocarbons _____ Deq.
2	.877	520	1.30	1.080	Specific Gravity Separator Gas 0.826 XXXXXXXXXX
3	.877	520	1.30	1.080	Specific Gravity Flowing Fluid XXXXX
4	.88	520	1.30	1.081	Critical Pressure 665 P.S.I.A. _____ P.S.I.A.
5					Critical Temperature 431 R _____ R

NO.	P _r ²	P _w	P _w ²	P _r ² - P _w ²	$(1) \frac{P_r^2}{P_r^2 - P_w^2} = 3.156$ $(2) \left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 2.379$ $AOF = Q \left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 2,422$
1	2706.7		2708.3	128.2	
2	2567.0		2569.2	267.3	
3	2286.7		2293.7	542.8	
4	1924.3		1937.7	898.8	

Absolute Open Flow 2,422 Mcfd @ 15.025		Angle of Slope 54.0 degrees	Slope, n 0.723
Remarks:			
Approved By Commission		Conducted By: C. J. Seals	Calculated By: C. J. Seals
		Checked By:	

Continued on sheet #73
 February 18, 1967



$$\begin{aligned}
 \log Q_2 / 150 &= 3.0606978 \\
 \log Q_1 / 115 &= 2.3324385 \\
 \hline
 &= 0.7282593 \\
 "N" &= 0.728
 \end{aligned}$$

AOF 2,722

WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (P_w)

FORM 2-122D
Approved 9-1-65

COMPANY Tecoma Inc. LEASE Antelope Dryland Unit WELL NO. 73 DATE 2-18-67

LOCATION: Unit 1 Section 4 Township 25-S Range 32-E

L 1.000 H 4597 L/H 1.000 G 0.836 % CO₂ 0 % N₂ 0 % H₂S 0

d 1.795 F₁ 0.013331 GH 3797 P_{CT} 665 T_{CT} 431

1st 1.795 2nd 1.795 3rd 1.795 TABLE IX & X

LINE	1st Term	2nd Term	1st Term	2nd Term	1st Term	2nd Term	1st Term	2nd Term
1 Q _m	.363	-	.434	-	.718	-	1.049	-
2 T _g (W.H. °R)	530.0	-	520	-	520	-	520	-
3 T _g (B.H. °R)	576.0	-	576.0	-	576.0	-	576.0	-
4 T = (1.8 T _g / 1.8)	540	-	540	-	540	-	540	-
5 Z (Est.)	.579	-	.579	-	.581	-	.589	.590
6 TZ	312.7	-	315.4	312.7	313.7	-	318.1	318.6
7 GH/TZ	13.143	-	13.037	13.143	13.104	-	11.936	11.918
8 e ^s (Table XIV)	1.577	-	1.571	1.577	1.574	-	1.565	1.563
9 1-e ^s (Table XIV)	0.366	-	0.363	.366	.365	-	.361	.360
10 P ₁	1645.2	-	1602.2	-	1512.2	-	1387.2	-
11 P ₁ ² /1000	2706.7	-	2567.0	-	2286.7	-	1924.3	-
12 F ₁ (Table XV)	.018231	-	.018231	-	.018231	-	.018231	-
13 F ₀ = F ₁ TZ	57901	-	57950	57901	57717	-	57799	57608
14 F ₀ Q _m	1.037	-	2.496	2.494	1.372	-	6.083	6.093
15 L/H (F ₀ Q _m) ²	42.81	-	6.230	6.121	7.390	-	31.003	27.125
16 F ₀ = L/H (F ₀ Q _m) ² (1-e ^{-s})	1.541	-	2.261	2.340	7.041	-	13.358	13.365
17 P _w ² = P ₁ ² + F ₀	2711.3	-	2547.3	2547.3	2293.7	-	1924.7	1922.7
18 P _w ² = e ^s P _w ²	1711.3	-	2006.6	4051.6	2610.3	-	3037.5	3037.5
19 P _w	41.4	-	44.1	64.1	51.0	-	54.3	54.3
20 P = (P _w / 1.2)	34.5	-	36.8	53.4	42.5	-	45.2	45.2
21 P ₁ = P _w P _{CT}	34.5	-	36.8	53.4	42.5	-	45.2	45.2
22 T _g = (T/T _{CT})	1.25	-	1.25	-	1.25	-	1.25	-
23 Z (Table XI)	.579	-	.579	.581	.581	-	.589	.590