

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special		RECEIVED 5-13-78		5-13-78	
Company Texas Pacific Oil Co., Inc.			Connection No		
Pool Revelation <i>monow</i>			Formation Morrow		Unit ✓
Completion Date 4-5-78		Total Depth 10,960'		Perf Back TD 10,876'	Elevation 3636 GL
Farm or Lease Name Hackberry Federal					
Csg. Size 5 1/2"	Wt. 17#	d	Set At 10,960'	Perforations: From 10,516' To 10,767'	
Thg. Size 2 3/8"	Wt. 4.7#	d	Set At 9750'	Perforations: From To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 9750'	
Producing Thru Tubing		Reservoir Temp. °F 169 @ 10,960'		Baro. Press. - P _a 13.2	
State New Mexico					
L 10,642'	H 10,642'	Gg .62	% CO ₂ 3.2	% N ₂ .48	% H ₂ S 0
Prover		Meter Run 4.026		Taps	

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							2760.5		Packer		
1.	4.026		.75	60	29	99	2479.5		0		60 mins.
2.	4.026		.75	90	35	130	2370		0		60 mins.
3.	4.026		.75	150	53	130	2205.5		0		60 mins.
4.	4.026		.75	200	70	124	1912.5		0		60 mins.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	2.661	46.07	73.2	.9645	1.27	1	150
2	2.661	60.09	103.2	.9388	1.27	1	191
3	2.661	93.00	163.2	.9388	1.27	1.01	298
4	2.661	122.16	213.2	.9436	1.27	1.012	394
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.	.107	559	1.553	1	A.P.I. Gravity of Liquid Hydrocarbons 0.62
2.	.151	590	1.639	1	Specific Gravity Separator Gas _____ Deg.
3.	.239	590	1.639	.981	Specific Gravity Flowing Fluid _____ X X X X X
4.	.312	584	1.622	.976	Critical Pressure 683 _____ P.S.I.A.
5.					Critical Temperature 360 _____ R

P _c 3610.2 P _c ² 13033.5				
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1		3364.2	11317.8	1715.7
2		3219.2	10363.2	2670.3
3		2980.2	8881.6	4151.9
4		2666.2	7108.6	5924.9
5				

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = \frac{13033.5}{5924.9}$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.85$$

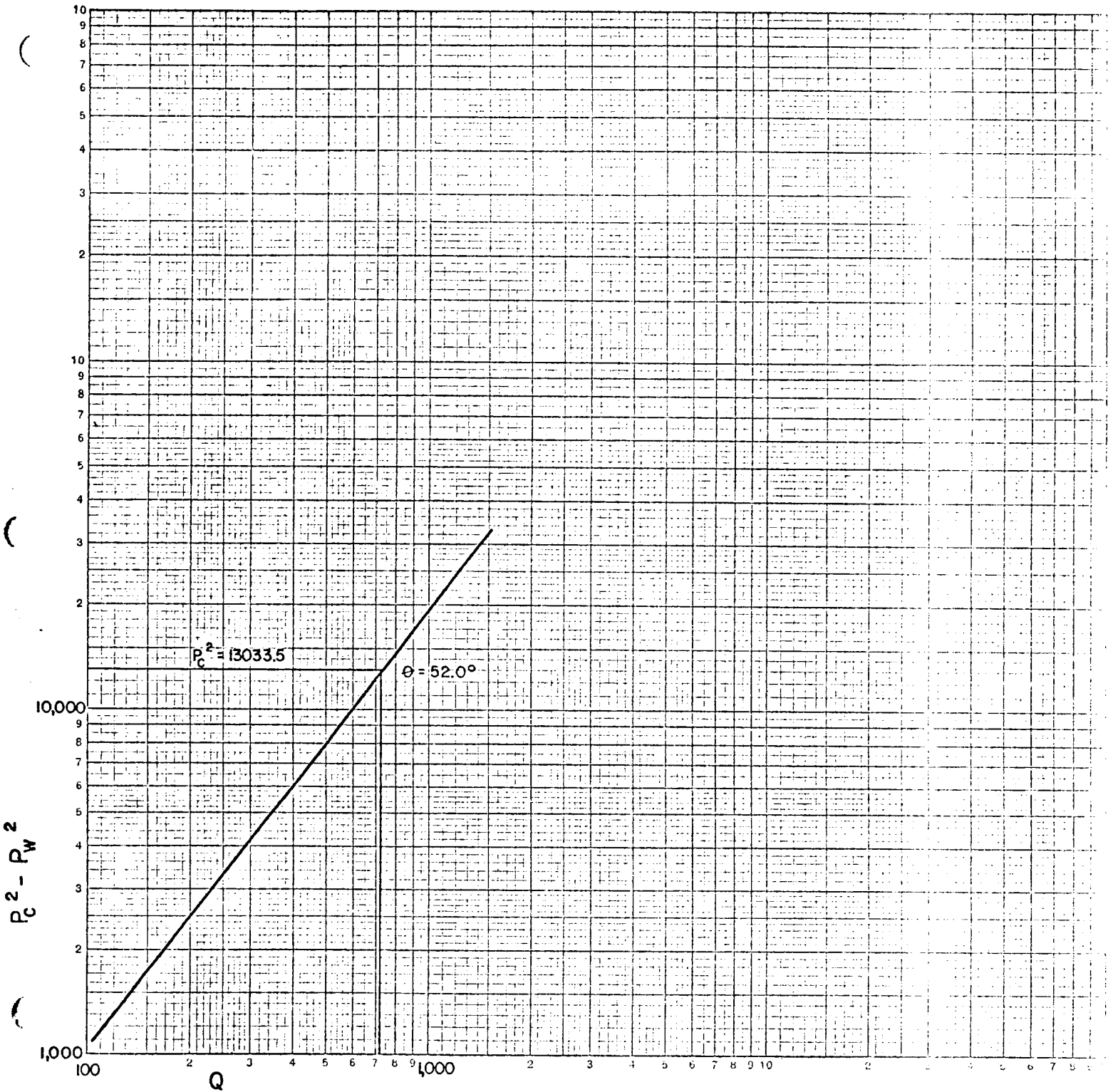
$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 728.70$$

Absolute Open Flow 728.70 Mcfd @ 15.025		Angle of Slope θ 52.0°	Slope, n .78
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Remarks: P _w submitted for P _t - Measured with Amerada Inst. No. 38116 - Element 5000# @ 10642' (Mid Perf)	
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Approved By Commission:	Conducted By:	Calculated By:	Checked By:
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TEXAS PACIFIC OIL COMPANY, INC.
 Hackberry Federal Well No. 1
 Unit L, 600' FWL & 1980' FFL
 Sec. 3, T. 22-S, R-25-E, Eddy
 Co., New Mexico - Revelation -
 Morrow Pool



CAOF = 728.7 MCF/D