

N MEXICO OIL CONSERVATION COMM ON
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☐ Initial ☐ Annual ☒ Special				Test Date 9-21-1972		OCT 4 - 1972	
Company Pennzoil Company				Connection Trans-Western Pipeline		O. C. C.	
Pool South Carlsbad (Morrow)				Formation Morrow		Unit L	
Completion Date 2-4-1972		Total Depth 11,833'		Plug Back TD 11,762		Elevation 3232 KB	
Csg. Size 5-1/2"		Wt. 17# 20#		Perforations: From 11,397 To 11,539		Well No. 2	
Tbg. Size 2-1/16"		Wt. 3.25		Perforations: From To		Unit Sec. Twp. Rge. L 6 23-S 27-E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple GG Dual				Packer Set At 10,311		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 192# 11,300		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
L 11,468		H 11,468		G _g .583		% CO ₂ % N ₂ % H ₂ S 0 0 0	
				Prover		Meter Run X	
						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
1	4.0		1.00	548	5.0	76	1984	72	421		3 hr.
2	4.0		1.00	555	12.6	68	1694	73	425		3 hr.
3	4.0		1.00	559	23.0	51	1357	71	428		3 hr.
4	4.0		1.00	540	30.5	50	1077	70	430		3 hr.
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	4.946	53.0	561.2	.9850	1.310	1.013	343
2	4.946	84.6	568.2	.9924	1.310	1.034	562
3	4.946	114.7	572.2	1.008	1.310	1.050	787
4	4.946	129.9	553.2	1.0098	1.310	1.048	890
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1	.84	536	1.53	.974	A.P.I. Gravity of Liquid Hydrocarbons <u>None Produced</u> Deg.
2	.85	528	1.51	.935	Specific Gravity Separator Gas <u>.583</u> X X X X X X X X
3	.85	511	1.46	.907	Specific Gravity Flowing Fluid <u>X X X X X</u>
4	.82	510	1.46	.910	Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
5					Critical Temperature _____ R _____ R

P _c 2936.2 P _c ² 8621				(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.2682$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.204$	
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.072$		
1		2589.2	6704	1917			
2		2232.2	4983	3638			
3		1730.2	2994	5627			
4		1350.2	1823	6798			
5							

Absolute Open Flow <u>1,072</u> Mcfd @ 15.025		Angle of Slope ϕ <u>52°</u>		Slope, n <u>.781</u>	
Remarks: <u>P_f substituted for P_w Measured with Amerada RPG-3 Instrument @ 11,468'</u>					
Approved By Commission:		Conducted By: J. Spruell		Calculated By: Massey	
				Checked By:	