

NE MEXICO OIL CONSERVATION COMMS
MULTIPOINT AND ONE POINT BACK PRESSURE TEST, OR GAS WELL

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 8-5-81		RECEIVED AUG 17 1981		
Company Southland Royalty Company			Connection El Paso Natural Gas Company						
Pool Angel Ranch			Formation Atoka Morrow			Unit O.C.D. ARTESIA, O.C.D.			
Completion Date 6-25-81		Total Depth 11329.		Plug Back TD 11165.		Elevation 3365.		Farm or Lease Name State A-32	
Csq. Size 4.500	Wt. 13.5	d 3.920	Set At 11316.	Perforations: From 10,324 To 10900.		Well No. 1			
Tbg. Size 2.375	Wt. 4.7	d 1.995	Set At 10234.	Perforations: From 0. To 0.		Unit Sec. Twp. Rge. S32 T19S R28E			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Gas-Single					Packer Set At 10234.		County Eddy County		
Producing Thru TBG		Reservoir Temp. °F 180 @ 10,612		Mean Annual Temp. °F 60.0		Baro. Press. - P _a 13.2		State New Mexico	
L 10,612	H 10,612	G _q 0.631	% CO ₂ 0.00	% N ₂ 0.60	% H ₂ S 0.00	Prover 0.0	Meter Run 4.0	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							1330.	75.			96.0
1.	4.00 x 0.750			73.	0.5	88.	1275.	83.	0.	0.	1.0
2.	4.00 x 0.750			74.	15.0	93.	1230.	83.	0.	0.	1.0
3.	4.00 x 0.750			74.	36.0	94.	1165.	85.	0.	0.	1.0
4.	4.00 x 0.750			75.	64.0	95.	900.	86.	0.	0.	1.0
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	2.66	6.57	86.2	0.9741	1.2589	1.0067	22.
2	2.66	36.17	87.2	0.9697	1.2589	1.0066	118.
3	2.66	56.03	87.2	0.9688	1.2589	1.0065	183.
4	2.66	75.13	88.2	0.9680	1.2589	1.0066	245.
5.							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ 0.0 _____ Mcf/bbl.	
1.	0.13	548.	1.49	0.987	A.P.I. Gravity of Liquid Hydrocarbons _____ 59.0 _____ Deg.	
2.	0.13	553.	1.51	0.987	Specific Gravity Separator Gas _____ 0.631 _____	
3.	0.13	554.	1.51	0.987	Specific Gravity Flowing Fluid _____ X X X X X _____ 0.631	
4.	0.13	555.	1.51	0.987	Critical Pressure _____ 670. _____ P.S.I.A. _____ 670. _____ P.S.I.A.	
5.					Critical Temperature _____ 367. _____ R _____ 367. _____ R	

P _c _____ P _c ² 1783					(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.8533$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.4199$	
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 348.$			
1	1659.	1276.	1629.	154.				
2	1546.	1232.	1518.	265.				
3	1388.	1167.	1362.	421.				
4	834.	906.	821.	962.				
5								

Absolute Open Flow _____ 348. _____ Mcfd @ 15.025		Angle of Slope θ _____ 60.4 _____		Slope, n _____ 0.568 _____	
Remarks: _____					
Approved By Commission:		Conducted By: Don Bennett		Calculated By: Ray Nokes	
				Checked By: Ray Nokes	