

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

Form C-122
Revised 9-1-65

RECEIVED

MAR 30 1981

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 2-26-81			
Company Southland Royalty Company ✓				Connection Phillips is proposed				C. C. D. AROLA, OFFICE	
Pool Undesignated				Formation Atoka				Unit	
Completion Date 2-17-81		Total Depth 10,410'		Plug Back TD 9935'		Elevation 3466.9'		Farm or Lease Name Pecos River Fed. #1	
Csg. Size 4 1/2"	Wt. 11.6	d 3.875	Set At 10,418'	Perforations: From 9910' To 9920'		Well No. #1			
Thg. Size 2 3/8"	Wt. 4.7#	d 1,995	Set At 9786'	Perforations: From 0. To 0.		Unit Sec. Twp. Rge. Sec 21, T-19-S, R-27-E			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 9786		County Eddy County	
Producing Thru Tubing		Reservoir Temp. °F 174 @ 9915		Mean Annual Temp. °F 60.0		Baro. Press. - P _a 13.2		State New Mexico	
L 9915.	H 9915.	Gg 0.606	% CO ₂ 0.41	% N ₂ 1.68	% H ₂ S 0.	Prover 0.	Meter Run 2.1	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.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							3700.	60.			192.0
1.	2.07 X 1.250			300.	8.0	61.	2670.	62.	0.	0.	1.0
2.	2.07 X 1.250			300.	16.0	62.	1745.	61.	0.	0.	1.0
3.	2.07 X 1.250			300.	11.0	62.	1060.	60.	0.	0.	1.0
4.	2.07 X 1.250			300.	8.0	63.	570.	59.	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	10.31	50.06	313.2	0.9990	1.2846	1.0273	680.
2	10.31	70.79	313.2	0.9981	1.2846	1.0271	961.
3	10.31	58.70	313.2	0.9981	1.2846	1.0271	797.
4	10.31	50.06	313.2	0.9971	1.2846	1.0269	679.
5.							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	0.47	521.	1.47	0.947	56.2	0.606	XXXXXX	XXXXXX	671.	355.
2.	0.47	522.	1.47	0.948						
3.	0.47	522.	1.47	0.948						
4.	0.47	523.	1.47	0.948						
5.										

NO.	P _t ²	P _w ²	P _w ²	P _c ² - P _w ²
1	7200.	2685.	7209.	6579.
2	3091.	1765.	3117.	10671.
3	1152.	1082.	1171.	12617.
4	340.	595.	354.	13434.
5				

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = \frac{1.2921}{1.2921 - 1.154} = 1.2009$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.2009$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1154.$$

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Absolute Open Flow	1154.	Mcfd @ 15.025	Angle of Slope θ	54.5	Slope, n	0.714
Remarks:						
Approved by Commission:	Conducted By: B J Well Testing	Calculated By: Ray Nokes	Checked By: C.C. Parsons			