

NEW MEXICO OIL CONSERVATION COMMISSION
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 11-21-78		DEC 15 1978	
Company SOUTHLAND ROYALTY ✓				Concession UNDESIGNATED			
Pool UNDESIGNATED <i>Wichita</i>				Formation MORROW		Unit O.C.C. ARTESIA, OFFICE	
Completion Date 11-19-78		Total Depth 11718.		Plug Back TD 11316.		Elevation 11785.	
Farm or Lease Name STATE 23 COMM							
Csg. Size 4.500	Wt. 11.6	d 4.000	Set At 11785.	Perforations: From 11600. To 11691.		Well No. 1	
Tbg. Size 2.375	Wt. 4.7	d 1.995	Set At 11316.	Perforations: From 0. To 0.		Unit Sec. Twp. Rge. J 23 19 29	
Type Well - Single - Brdenhead - G.G. or G.O. Multiple SINGLE				Packer Set At 0.		County EDDY	
Producing Thru TRG		Reservoir Temp. °F 180. @ 11645.		Mean Annual Temp. °F 60.0		Baro. Press. - P _a 13.2	
State NEW MEXICO							
L 11645.	H 11645.	G _g 0.990	% CO ₂ 0.54	% N ₂ 0.29	% H ₂ S 0.	Prover 0.	Meter Run 2.1
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							3455.	68.			72.0
1.	2.07 X 1.250			310.	8.6	73.	2895.	66.	0.	0.	1.0
2.	2.07 X 1.250			310.	19.2	94.	2700.	66.	0.	0.	1.0
3.	2.07 X 1.250			315.	32.6	90.	2320.	67.	0.	0.	1.0
4.	2.07 X 1.250			315.	57.6	83.	1780.	68.	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	8.12	52.72	323.2	0.9877	1.0053	1.0775	458.
2	8.12	78.77	323.2	0.9688	1.0053	1.0669	665.
3	8.12	103.44	328.2	0.9723	1.0053	1.0700	879.
4	8.12	137.47	328.2	0.9786	1.0053	1.0736	1179.
5.							

NO.	P _r	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.	0.49	533.	1.11	0.861	0.	54.6	0.990	XXXXXX	655.	479.
2.	0.49	554.	1.16	0.877				XXXXXX		
3.	0.50	550.	1.15	0.873						
4.	0.50	543.	1.13	0.868						
5.										

$P_c = 3460.1$ $P_c^2 = 11972.$					$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.3601$ $(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.3601$	
NO.	P _r ²	P _w	P _w ²	P _c ² - P _w ²		
1	8458.	2903.	8426.	3546.		
2	7361.	2708.	7336.	4637.		
3	5444.	2325.	5407.	6565.		
4	3216.	1780.	3170.	8803.		
5						

Absolute Open Flow <u>1604.</u> Mcfd @ 15.025			Angle of Slope θ <u>45.0</u>		Slope, n <u>1.000</u>	
Remarks:						

Approved By Commission:	Conducted By: R-T Testing	Calculated By: Don Craig	Checked By: Don Craig
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