

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

457
Form C-File
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 8-1-85	
Company SOUTHLAND ROYALTY			Connection AIR NEW WELL		
Pool TURKEY TRACK <i>Morrow</i>			Formation MORROW		
Completion Date 7-29-85		Total Depth 11300		Plug Back To 11052	
		Elevation 3389		Farm or Lease Name EAST MILLMAN 12	
Dis. Size 5.500	Wt. 17.0	d 4.892	Set At 11300	Perforations: From 10958 To 10970	
Req. Size 2.375	Wt. 4.9	d 1.995	Set At 10877	Postperforational: From To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE				Packer Set At 10877	
Producing Thru TUBING		Reservoir Temp. °F 198 • 10964		Mean Annual Temp. °F 60.0	
		Baro. Press. - P _a		County EDDY	
L 10964	H 10964	G _g 0.662	% CO ₂ 3.73	% N ₂ 0.24	% H ₂ O 0
Proven 0		Motor Run 2.1		Taps FLG	

FLOW DATA						TUBING DATA		B.H.P. DATA		Duration of Flow
NO.	Proven 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.	
51							2750	198	3753	
1.	2.07	X	1.250	138	12.0	100	2690	198	3657	4/64
2.	2.07	X	1.250	141	25.0	100	2660	198	3626	7/64
3.	2.07	X	1.250	138	48.0	100	2570	198	3569	9/64
4.	2.07	X	1.250	144	88.0	100	2400	198	3403	11/64
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. Compres. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	8.12	42.60	151.2	0.9636	1.2291	1.0112	414
2	8.12	62.09	154.2	0.9636	1.2291	1.0114	604
3	8.12	85.19	151.2	0.9636	1.2291	1.0112	828
4	8.12	117.62	157.2	0.9636	1.2291	1.0117	1144
5							

NO.	P _h	Temp. °R	T _g	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	0.22	560	1.51	0.978	0	0	0.662	XXXXXX	685	371
2	0.22	560	1.51	0.978						
3	0.22	560	1.51	0.978						
4	0.23	560	1.51	0.977						
5										

P _h 2844.1 P _c 8089			
NO.	P _h ²	P _w ²	P _c ² - P _w ²
1	2767	7658	431
2	2743	7522	567
3	2697	7276	813
4	2567	6587	1502
5			

$$(1) \frac{P_c^2}{P_h^2 - P_w^2} = 5.3864$$

$$AQF = Q \left[\frac{P_h^2}{P_h^2 - P_w^2} \right]^n = 3464$$

$$(2) \left[\frac{P_c^2}{P_h^2 - P_w^2} \right]^n = 3.0277$$

*Post FD-2
8-23-85
Comp & BK*

Absolute Open Flow	3464	Mcf @ 15.025	Angle of Slope °	56.7	Slope, n	0.658
Remarks: B.H.P. MEASURED WITH AMERADA PRESSURED ELEMENT						

Approved By Commission:	Conducted By: BENNETT & CATHEY	Calculated By: RICHARD TOWNLEY	Checked By: <i>Danell Roberts</i>
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