

dist file

Submit in duplicate to appropriate district office
See Rule 401 & Rule 1122

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator Southland Royalty Company				Lease or Unit Name PARKWAY A STATE COMM.			
Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special				Test Date 3-27-95		Well No. 1	
Completion Date 3-21-95		Total Depth 11740		Plug Back TD 11125		Elevation 3324.1	
Csg. Size 4 1/2		Wt. d 11.6 4.000		Set At 11740		Perforations: From: 10758 To: 10770	
Tbg. Size 2-3/8"		Wt. d 4.7 1.995		Set At 10683		Perforations: From: To:	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple <i>single</i>				Packer Set At 10683'		Formation ATOKA	
Producing Thru TBC		Reservoir Temp. °F		Mean Annual Temp. °F		Baro. Press - P _a	
Connection AIR		Meter Run 4.026		Taps FLG.			
L 10673	H 10673	Gg .679	% CO ₂ .50	% N ₂ 1.35	% H ₂ S	Prover	

FLOW DATA

TUBING DATA

CASING DATA

NO.	Prover Line Size	Orifice X 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	Duration of Flow
SI						1275				
1.	4.026	X 1.750	67	3	70	1030		pkc.		1 hr.
2.	4.026	X 1.750	66	4	76	885				1 hr.
3.	4.026	X 1.750	65	5	82	770				1 hr.
4.	4.026	X 1.750	65	7	82	675				1 hr.
5.										

RATE OF FLOW CALCULATIONS

NO.	COEFFICIENT (24 HOUR)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg.	Super Compress. Factor, F _{pv} .	Rate of Flow Q, Mcfd
1.	14.93	15.51	80.2	.9905	1.214	1.009	281
2.	14.93	17.80	79.2	.9850	1.214	1.009	321
3.	14.93	19.77	78.2	.9795	1.214	1.009	354
4.	14.93	23.40	78.2	.9795	1.214	1.009	419
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/tbl.
1.	.12	530	1.40	.982	DRY GAS	
2.	.12	536	1.41	.982	A.P. I. Gravity of Liquid Hydrocarbons DRY	Deg.
3.	.12	542	1.42	.982	Specific Gravity Separator Gas .679	XXXXXXXXXX
4.	.12	542	1.43	.982	Specific Gravity Flowing Fluid DRY	XXXXX
5.					Critical Pressure 668*	P.S.I.A. P.S.I.A.
					Critical Temperature 379*	R R

P_c **1316.0 P_c² **1731.86

NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²
1.		1100.1	1211.32	520.54
2.		967.1	935.28	796.58
3.		864.0	746.50	985.36
4.		781.1	610.12	1121.74
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.54391$ 2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.35521$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 568$

Absolute Open Flow 568 Mcfd @ 15.025 Angle of Slope θ 55° Slope, n .69984

Remarks: *CORRECTED TO 1% N²

CALCULATED FROM KNOWN BHP *BOMBS SET @ THIS DEPTH

Approved By Division	Conducted By: PRO WELL TESTER	Calculated By: KS	Checked By: BM
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