

MULTI-POINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Revised 1-1-65

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 10-13-78				
Company Mewbourne Oil Company				Connection Nat. Gas Pipe Line Company					
Pool Wildcat				Formation Atoka				Unit N	
Completion Date 10-8-78		Total Depth 13008		Plug Back TD 12750		Elevation 4161 GR		Farm or Lease Name State H. Comm.	
Cas. Size 5.5	Wt. 17	d. 4.396	Set At 13008	Perforations: From 12474 To 12490		Well No. 1			
PK. Size 2.375	Wt. 4.7	d. 1.995	Set At 12320	Perforations: From To		Unit 6		Soc. 16S	Twp. 34E
Type Well - Single - Rindhead - G.G. or G.O. Multiple Single Completion				Packer Set At 12320		County Lea			
Producing Thru Tubing		Reservoir Temp. °F 180		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico	
L 12482	H 12492	Gg .687	% CO ₂ 0	% N ₂ 0	% H ₂ S 0	Prover	Meter Run X	Taps	

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							4448				
1.	3.0	1.75		680	4.8	76	2355	72			1 hr.
2.	3.0	1.75		680	5.3	76	2361	72			1 hr.
3.	3.0	1.75		680	7.6	76	2081	72			1 hr.
4.	3.0	1.75		680	8.8	76	1635	72			1 hr.
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	15.87	57.68	693.2	.9850	1.205	1.077	1171
2	15.87	63.41	693.2	.9850	1.210	1.077	1237
3	15.87	72.53	693.2	.9850	1.206	1.077	1474
4	15.87	78.10	693.2	.9850	1.206	1.077	1586
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/Std.
1.	1.04	536	1.38	.862	22992	
2.	1.04	536	1.38	.862	52.0	
3.	1.04	536	1.33	.862	.687	X X X X X X X X
4.	1.04	536	1.38	.862	X X X X X	.815
5.					669	665
					388	431

P _r 4461.2 P _c ² 19902				
NO.	P _r ²	P _w	P _w ²	P _c ² - P _w ²
1		3038.3	9231	10671
2		2533.1	6417	13485
3		2144.8	4600	15302
4		1730.2	2994	16908
5				

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.1771$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1791$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.12973$$

Absolute Open Flow	1791	Mcf @ 15.025	Angle of Slope @	53.5	Slope, n	.748
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Remarks:

Approved By Commission:	Conducted By: Johnny Ellis	Calculated By: H. L. Hagler	Checked By: H. L. Hagler
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