

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

OCT - 3 '89

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 6 6 89		O. C. D.	
Company BILL FENN ✓		Connection AIR		AREA, OFFICE	
Pool INDIAN BASIN - <i>Strawn</i>		Formation STRAWN		Unit	
Completion Date 6 3 89		Total Depth 9564		Plug Back TD 9087	
Elevation 3804		Farm or Lease Name ROARING SPRINGS		Well No. 1 <i>Fed. 8 am</i>	
Coq. Size 4 500	Wt. 11 6	d 4 000	Set At 9564	Perforations: From 8309 To 8319	Unit Sec. Twp. Rye. 14-21S-23E
Thq. Size 2 375	Wt. 4 7	d 1 990	Set At 8232	Perforations: From 8442 To 8452	
Type Well - Single - Blindhead - G.G. or G.O. Multiple DUAL GAS				Packer Set At 8190	
Producing Thru TUBING		Reservoir Temp. °F 148 ⁰ 8380		Mean Annual Temp. °F 60	
Baro. Press. - P _g 13.2		State N.M.			
L 8380	H 8380	G _g .625	% CO ₂ 1.81	% N ₂ 1.41	% H ₂ S .00
Prover 1 .0		Meter Run 4.0		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							1760	60			72
1.	4.03X1.375			300	2.5	62	1620	60	PKR	0	1
2.	4.03X1.375			300	3.5	61	1470	60	PKR	0	1
3.	4.03X1.375			300	6.0	62	1270	60	PKR	0	1
4.	4.03X1.375			300	15.0	61	1010	60	PKR	0	1
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 _{sp}	Rate of Flow Q, Mcfd
1	9.07	27.98	313.2	.9981	1.2649	1.0272	219
2	9.07	33.11	313.2	.9990	1.2649	1.0274	290
3	9.07	43.35	313.2	.9981	1.2649	1.0272	510
4	9.07	68.54	313.2	.9990	1.2649	1.0274	807
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	.46	522	1.45	.948	.0	.0	.625	XXXXXXX	677	359
2	.46	521	1.45	.947						
3	.46	522	1.45	.948						
4	.46	521	1.45	.947						
5										

NO.	P _c	P _w	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2}$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n$
1	1773.2	1635	471	1.5111	1.2843
2	2200	1485	938		
3	1647	1286	1490		
4	1047	1031	2081		
5					

AOE = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1037$

Absolute Open Flow	1037	Mcfd @ 15.025	Angle of Slope @	58.8	Slope, n	606
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CHORE SIZE 1ST RATE 5/64 2ND RATE 6/64
3RD RATE 7/64 4TH RATE 8.5/64

Approved By Division	Conducted By: BENNETT-CATHEY	Calculated By: MONTY RANDOLPH	Checked By: MATT LEE
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