

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial FOUR POINT ☐ Annual ☐ Special						Test Date 9-15-81		1980 FSL	
Company SANTA FE ENERGY				Connection AIR NEW WELL				1980 FEL	
Pool WILDCAT				Formation MORROW				Unit J	
Completion Date 9-6-81		Total Depth 13,790		Plug Back TD 12,491		Elevation 4,325 KB		Farm or Lease Name STATE UTP	
Coq. Size 5.5	Wt. 17.0	d 4.892	Set At 12,491	Perforations: From 12,364 To 12,383				Well No. 1	
Trg. Size 2.375	Wt. 4.7	d 1.995	Set At 12,305	Perforations: From OPEN To ENDED				Unit Sec. Twp. Rge. J 21 15S 32E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE						Packer Set At 12,296		County LEA	
Producing thru TUBING		Reservoir Temp. °F 174 @ 12,322		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2		State NEW MEXICO	
L 12,374	H 12,374	Gg 0.736	% CO ₂ 0.45	% N ₂ 1.56	% H ₂ S	Prover	Meter Run 4"	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	B.H.P.	Temp. °F	
SI							2894	87	5.432		216 HRS.
1.	4"	X	1.5	115.0	1.9	86	2217	71	4.723		1 HR.
2.	4"	X	1.5	118.0	2.5	86	2042	73	4.436		1 HR.
3.	4"	X	1.5	121.0	6.0	85	1786	76	4.022		1 HR.
4.	4"	X	1.5	121.0	10.5	84	1509	77	3.534		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 Fpv	Rate of Flow Q, Mscf
1	11.1200	15.61	128.2	.9759	1.1656	1.0133	200.
2	11.1200	18.11	131.2	.9759	1.1656	1.0143	232.
3	11.1200	28.38	134.2	.9768	1.1656	1.0143	364.
4	11.1200	37.54	134.2	.9777	1.1656	1.0143	483.
5							

NO.	R ₁	Temp. °R	T ₁	Z	Gas Liquid Hydrocarbon Ratio	Mcf/hbl.
					3806.5 : 1	
					A.P.I. Gravity of Liquid Hydrocarbons 47.7	
1	.19	546	1.38	.974	Specific Gravity Separator Gas .7360	X X X X X X X X
2	.20	546	1.38	.972	Specific Gravity Flowing Fluid X X X X X	.7360
3	.20	545	1.38	.972	Critical Pressure 667	P.S.I.A. 666
4	.20	544	1.37	.972	Critical Temperature 396	R 395
5						

NO.	P ₁	P _w	i _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.7372$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.7372$
1		4736.2	22431.6	7219.0		
2		4449.2	19795.4	9855.0		
3		4035.2	16282.8	13367.0		
4		3347.2	12582.6	17068.0		
5						

Absolute Open Flow 839.1		Mscf @ 15.025	Angle of Slope @ 45.0	Slope, n 1.0000
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Remarks: BOTTOM HOLE PRESSURE MADE WITH AMARADA PRESSURE GUAGES.

Approved by Division	Conducted By: DON BENNETT	Calculated By: WOHLFORD & JENKINS	Checked by: P. J. [Signature]
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