

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS RECEIVED BY

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 7/21/86		JUL 31 1986 G.C.B. ARTISIA OFFICE							
Company H.N.G. Oil Company ✓		Connection El Paso									
Pool Wildcat - <i>Wolfcamp</i>		Formation Wolfcamp									
Completion Date 6/25/86		Total Depth 12,150		Plug Back TD 11,125		Elevation 3038		Farm or Lease Name Fate 34			
Cq. Size 5 1/2		Wt. 15 1/2#		d 4.950		Set At 12,150		Perforations: From 10,606 To 10,655		Well No. 1	
Tbg. Size 2 3/8		Wt. 4.7		d 1.995		Set At 9,375		Perforations: From Open To End		Unit Sec. Twp. Rge. N 34 23S 28E	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single						Packer Set At 9,375		County Eddy		State New Mexico	
Producing Thru Tbg.		Reservoir Temp. °F 180		Mean Annual Temp. °F 60		Baro. Press. - P _g 13.2		Meter Run 4.026		Taps Flg.	
L 10,628		H 10,628		Cq .710		% CO ₂ .160		% N ₂ .597		% H ₂ S	
								Prover			

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							3747		1320		
1.	4.026 X 1.00			360	2	96	3575		1320		75 min.
2.	4.026 X 1.00			350	4.2	99	3499		1370		60 min.
3.	4.026 X 1.00			350	8	98	3422		1325		60 min.
4.	4.026 X 1.00			350	16.8	93	3309		1325		75 min.
5.	4.026 X 1.00			400	19.8	81	3111		1325		75 min.

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	4.753	27.32	373.2	.9671	1.187	1.037	155
2.	4.753	39.06	363.2	.9645	1.187	1.035	220
3.	4.753	53.90	363.2	.9653	1.187	1.036	304
4.	4.753	78.11	363.2	.9697	1.187	1.036	443
5.	4.753	90.45	413.2	.9804	1.182	1.046	521

NO.	P _f	Temp. °F	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	.56	556	1.41	.930	4.827	58.3 @ 60	.710	XXXXXX	668	395
2.	.54	559	1.42	.934				XXXXX		
3.	.54	558	1.41	.932						
4.	.54	553	1.40	.931						
5.	.62	541	1.37	.914						

NO.	P _f ²	P _s ²	P _s ² - P _f 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	5522.2	30494.7	1002.1	2.7876	1.670
2	5458.2	29791.9	1704.9		
3	5404.2	29205.4	2291.4		
4	4838.2	23408.2	8088.6		
5	4494.2	20197.8	11299.0		

Absolute Open Flow 870 Mcfd @ 15.025		Angle of Slope 63.5		Slope, n .500	
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Remarks: Calculated from known bottom hole pressures well made 16.6 BBL of condensate during test.

Approved By Division	Conducted By: Duke Services, Inc.	Calculated By: R. Reston	Checked By: <i>Betty Seldon</i> H.N.G. Oil Company 7/21/86
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