

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 4-2-79		APR - 6 1979	
Company H.N.G. Oil Co. ✓				Connection None		D.C.C.	
Pool <u>und.</u> South Culebra Bluff <u>Atoka</u>				Formation Atoka		ARTESIA, OFFICE	
Completion Date 3-2-79		Total Depth 13,100		Plug Back TD 13,019		Elevation GL 3016	
Farm or Lease Name Williams 35 Com				Well No. 1			
Csg. Size 4 1/2	Wt. 13.5	d	Set At 13,100	Perforations: From 11,754 To 11,761			
Tbg. Size 2 3/8	Wt. 4.7	d	Set At 10,769	Perforations: From To		Unit Sec. Twp. Rge. C 35 23S 28E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 10,769		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F @		Mean Annual Temp. °F 68		Baro. Press. - P _a 13.2	
State New Mexico							
L 10,769	H 10,769	G _g .57	% CO ₂ .3	% N ₂ None	% H ₂ S None	Prover 3.068	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							5901				
1.	3.068	1.50	193.2	9.0	92		5702	72	Packer		60 Min.
2.	3.068	1.50	451.2	20.0	86		5195	72			60 Min.
3.	3.068	1.50	523.2	36.0	76		4763	73			60 Min.
4.	3.068	1.50	618.2	44.2	75		4441	72			60 Min.
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	11.13	41.7	193.2	.9706	1.320	1.011	601
2	11.13	95.0	451.2	.9759	1.320	1.028	1400
3	11.13	137.24	523.2	.9850	1.320	1.041	2067
4	11.13	165.3	618.2	.9859	1.320	1.049	2512
5.							

NO.	P _t	Temp. °R	T _t	Z	Gas Liquid Hydrocarbon Ratio	None	Mcf/bbl.
1.	.287	552	1.58	.978	A.P.I. Gravity of Liquid Hydrocarbons <td>None <td>Deq.</td> </td>	None <td>Deq.</td>	Deq.
2.	.671	546	1.56	.947	Specific Gravity Separator Gas	.5738	XXXXXXX
3.	.778	536	1.53	.922	Specific Gravity Flowing Fluid	XXXXX	
4.	.919	535	1.53	.909	Critical Pressure	672	P.S.I.A.
5.					Critical Temperature	350	R

P _c 7229.2 P _c ² 52261				(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.63$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.262$	
NO	P _t ²	P _w	P _w ²	P _c ² - P _w ²			
1		7019.2	49269	2992			
2		6504.2	42305	9956			
3		6035.2	36424	15837			
4		5691.2	32390	19871			
5							

Absolute Open Flow 5682				Mcf/d @ 15.025		Angle of Slope @ 49.5		Slope, n .8439	
Remarks: PW Substituted for Pt - Measured with Amerada Instrument No. 34044									
0-12,500# Element									
Approved By Commission:			Conducted By: Lambert			Calculated By: Spruell		Checked By: Pyle	