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122 file
Form C-122
Revised 9-1-65

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

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 10-4-77	
Company H.N.G. Oil Co.				Connection None	
Pool <i>Wildcat Atoka</i> Undesignated				Formation Atoka	
Completion Date 9-5-77		Total Depth 13030		Plug Back TD Elevation 3045 GR	
Csg. Size 4 1/2	Wt. 13.5	d 3.920	Set At 13029	Perforations: From 11936 To 11941	
Thg. Size 2 7/8	Wt. 6.5	d 2.441	Set At 9989	Perforations: From To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 9989	
Producing Thru Tubing		Reservoir Temp. °F 196 @ 11939		Mean Annual Temp. °F 60	
				Baro. Press. - P _a 13.2	
L 9989	H 9989	G _g .63	% CO ₂ 0	% N ₂ 0	% H ₂ S Prover
				Meter Run X	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.	
SI							3860.2	68	Packer	
1.	3.068		1.250	178.2	6.0	98	3706.2	70		60 Min.
2.	3.068		1.250	403.2	5.0	98	3573.2	75		60 Min.
3.	3.068		1.250	393.2	18.0	90	3015.2	75		60 Min.
4.	3.068		1.250	398.2	26.0	81	2730.2	76		60 Min.
5.										

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (29.900)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	6.095	32.69	178.2	.9653	1.260	1.014	246
2.	6.095	45.45	403.2	.9653	1.260	1.033	348
3.	6.095	84.13	393.2	.9723	1.260	1.031	648
4.	6.095	101.75	398.2	.9804	1.260	1.031	790
5.							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	None	Mcf/bbl.
1	.27	558	1.52	.972	A.P.I. Gravity of Liquid Hydrocarbons	None	Deq.
2.	.62	558	1.52	.937	Specific Gravity Separator Gas	.63	XXXXXXXXXX
3.	.59	550	1.49	.940	Specific Gravity Flowing Fluid	XXXXXX	
4.					Critical Pressure	670	P.S.I.A.
5.					Critical Temperature	368	R

NO.	P _t	P _w	P _w ²	P _c ² - P _w ²	$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 3.1887$ $(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.4899$ $ACF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1967$
1		5259.2	27689		
2		5100.2	26012	1647	
3		4956.2	24564	3095	
4		4560.2	20795	6864	
5		4357.2	18985	8674	

Absolute Open Flow		1967	Mcf @ 15.025	Angle of Slope @	Slope, n .79867
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Remarks: PW substituted for PT measured with Amerada Instrument No. 34683 - 0-7000#

Element

Approved By Commission:	Conducted By: Richburg	Calculated By: Richburg	Checked By: Spruell
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