

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

Form C-122
 Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 11-12-84							
Company Hamon Oil Company			Connection None								
Pool Wildcat			Formation Morrow								
Completion Date 11-7-84		Total Depth 13,650'		Plug Back TD 13,579'							
				Elevation 3856 K.B.							
Farm or Lease Name N.M. 36 State Com											
Well No. 1											
Cas. Size 5 1/2"	Wt. 20#	d 4.778	Set At 13,627'	Perforations: From 13,234 To 13,358							
Thg. Size 2 3/8"	Wt. 4.6#	d 1.995	Set At 13,146'	Perforations: From OPEN-ENDED							
Type Well - Single - Rodenhead - G.G. or G.O. Multiple SINGLE				Packer Set At							
Producing Thru TUBING		Reservoir Temp. °F 207° 13,298'		Mean Annual Temp. °F 60°							
				Baro. Press. - P _g 13.2							
L 13,298	H 13,298	G _g .735	% CO ₂ 7.182	% N ₂ 1.794	% H ₂ S Prover						
				Meter Run 4"							
				Taps Flange							
FLOW DATA			TUBING DATA		CASING DATA						
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	Duration of Flow
SI							2350	58°	PKR	CHOKE	72 Hrs.
1.	4.026	x	.750	463	3"	90°	2177	59		3/64	1 Hr.
2.	4.026	x	.750	420	10	102	2045	61		4/64	1 Hr.
3.	4.026	x	.750	480	24	100	1872	63		6/64	1 Hr.
4.	4.026	x	.750	495	49	87	1627	66		8/64	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 F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd				
1	2.661	37.80	476.2	.9723	1.166	1.043	119				
2	2.661	65.82	433.2	.9619	1.166	1.036	204				
3	2.661	108.80	493.2	.9636	1.166	1.041	339				
4	2.661	157.80	508.2	.9750	1.166	1.046	499				
5											
NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 69.846 Mcf/bbl.						
					A.P.I. Gravity of Liquid Hydrocarbons 61.5 @ 60° F.						
1	.69	550	1.44	.920	Specific Gravity Separator Gas .735						
2	.62	562	1.47	.932	Specific Gravity Flowing Fluid XXXXX						
3	.71	560	1.46	.922	Critical Pressure 695 P.S.I.A.						
4	.73	547	1.43	.914	Critical Temperature 383 R						
5											
P _r 2557.2 P _c ² 6539.3					(1) $\frac{P_c^2}{P_r^2 - P_w^2} = 2.571$ (2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 2.208$						
NO	P _i ²	P _w	P _w ²	P _c ² - P _w ²	AOI Q $\left[\frac{P_r^2}{P_c^2 - P_w^2} \right]^n = 1.102$						
1		2462.8	6065.4	473.9							
2		2376.7	5648.7	890.6							
3		2226.1	4955.5	1583.8							
4		1998.9	3995.6	2543.7							
5											
Absolute Open Flow 1,102 Mcfd @ 15.025					Angle of Slope @ 50			Slope, n 839			
Remarks: Well made 3.4 Bbls/condensate during test. BHP Pressures measured with a Kuster gauge. P _c and P _w calculated from known BHP.											
Approved By Commission:			Conducted By: W.S.			Calculated By: R.R.			Checked By: R.R.		

$$\begin{aligned}
 Q_1 &= 621 = \text{Log } 2.79324 \\
 Q_2 &= 90 = \text{Log } 1.95424 \\
 N &= .83900
 \end{aligned}$$

$$\text{CAOF} = 499 \frac{(6539.3)}{2543.7} \cdot .839 = 1,102 \text{ Mcf/Day}$$

HAMON OIL COMPANY

N.M. 36 STATE COM NO. 1

NOVEMBER 12, 1984

