

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 5-15-73	
Company HNG OIL COMPANY				Connection None		
Pool Crawford				Formation Morrow		Unit
Completion Date 5-11-73		Total Depth 12,125'		Plug Back TD 11,350'		Elevation 3362' G.L.
Farm or Lease Name Bowden Federal 25						Well No. 1
Csg. Size 5" Liner	Wt. 18#	d 4.276	Set At 9053-11392	Perforations: From 11,210 To 11,220		Unit Sec. Twp. Rge. I 25 24S 26E
Thq. Size 2-7/8"	Wt. 65#	d 2.441	Set At 9058	Perforations: From Open To Ended		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 9058'		County Eddy
Producing Thru 2-7/8" Tubing		Reservoir Temp. °F 190° 11,200'		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2
State New Mexico						
L 11,200'	H 11,200'	G _g .579	% CO ₂ .56	% N ₂ .99	% H ₂ S Nil	Prover Meter Run 4.026 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							3131	72	500	72	
1.	4.026		1.00	215	10	83	2638	72	520	72	1 hour
2.	4.026		1.00	210	25	88	2410	72	528	72	1 hour
3.	4.026		1.00	210	45	86	2119	71	525	71	1 hour
4.	4.026		1.00	220	80	84	1745	69	525	69	1 hour
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	4.753	47.77	228.2	0.9786	1.314	.973	284
2	4.753	74.70	223.2	0.9741	1.314	.974	443
3	4.753	100.20	223.2	0.9759	1.314	.974	595
4	4.753	136.60	233.2	0.9777	1.314	.972	811
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	.34	543	1.56	.973	A.P.I. Gravity of Liquid Hydrocarbons	Deg.
2.	.33	548	1.57	.974	Specific Gravity Separator Gas	.579
3.	.33	546	1.57	.974	Specific Gravity Flowing Fluid	X X X X X X X X
4.	.35	544	1.56	.972	Critical Pressure	673.5 P.S.I.A.
5.					Critical Temperature	348.9 R

P _c 3131	P _c ² 9803	(1) $\frac{P_c^2}{P_e^2 - P_w^2} = 1.732$	(2) $\left[\frac{P_c^2}{P_e^2 - P_w^2} \right]^n = 1.339$
NO.	P _e ²	P _w	P _w ²
1	6959	3000	9000
2	5808	2812	7907
3	4490	2436	5934
4	3045	2036	4145
5			

Absolute Open Flow		1085	Mcf/d @ 15.025	Angle of Slope	532
Remarks: Gas BTU 1002.4 Bottom hole pressures taken w/Kuster element.					
Approved By Commission:		Conducted By: Chas. A. Lutz		Calculated By: R. R. Frazier	
				Checked By: R. R. Frazier	

RECEIVED
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 U.S. GEOLOGICAL SURVEY
 ARTESIA, NEW MEXICO