

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

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 3-14-79	
Company HNG Oil Company				Connection Natural Gas Pipeline Company of Amer.	
Pool South Shoe Bar				Formation Atoka	
Completion Date 3-5-79		Total Depth 13,055'		Plug Back TD 12,969'	
		Elevation 3990' GR		Farm or Lease Name NM State-28 <i>State</i>	
Csg. Size 4½ & 5½	Wt. 13.5# 17#	d 3.920 4.892	Set At 13,055	Perforations: From 12453 To 12482	
Thq. Size 2 7/8	Wt. 6.5#	d 2.441	Set At 11,582	Perforations: From To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At PBR 11,582	
Producing Thru Tubing		Reservoir Temp. °F 188 • 12420		Mean Annual Temp. °F 60	
		Baro. Press. - P _g 13.2		State New Mexico	
L 12468	H 12468	G _g 0.630	% CO ₂	% N ₂	% H ₂ S
				Prover	Meter Run X
Taps					

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							4756		Pkr.	
1.	3"	X	1.500"	300	2	90	4692	70	"	
2.	3"	X	1.500"	300	8.5	92	4592	70	"	
3.	3"	X	1.500"	405	20	63	4395	70	"	
4.	3"	X	1.500"	630	45	60	3947	70	"	
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	25.03	313.2	0.9723	1.260	1.025	349.8
2	11.13	51.60	313.2	0.9706	1.260	1.025	719.9
3	11.13	91.45	418.2	0.9971	1.260	1.041	1331.2
4	11.13	170.13	643.2	1.0000	1.260	1.064	2538.6
5.							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1	0.47	550	1.49	0.951	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2	0.47	552	1.50	0.952	Specific Gravity Separator Gas 0.630
3	0.62	523	1.42	0.923	Specific Gravity Flowing Fluid _____ X X X X X
4	0.96	520	1.41	0.883	Critical Pressure 670 P.S.I.A.
5					Critical Temperature 368 R

NO.	P _t ²	P _s ²	P _{s2} ²	P _{f2} -P _{s2} ²
1		6190.2	38319	1248
2		6081.2	36981	2586
3		5874.2	34506	5061
4		5375.2	28893	10674
5				

P_f 6290.2 P_{f2} 39567

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.7068577$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.219802$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 8173.8$

Absolute Open Flow 8173.8 Mcfd @ 15.025

Angle of Slope @ 48° 15'

Slope, n 0.892485

Remarks: BHP measured with Amerada RPG-3 gauge serial number 32709N 0-11000 psig.

Approved By Commission:	Conducted By: Tefteller, Inc.	Calculated By: F. Tefteller	Checked By:
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RECEIVED

MAR 22 1979

**OIL CONSERVATION COMM.
HOUSTON, TEXAS**