N' MEXICO OIL CONSERVATION COMMI[illegible]ON

MULTIPOINT ...D ONE POINT BACK PRESSURE TES FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test: [x] Initial [ ] Annual [ ] Special		Test Date: 9-20-78	
Company: H.N.G. Oil Co.	Connection: Natural Gas Pipe Line Company of Amer.		
Pool: South Shoe Bar	Formation: Morrow	Unit: Shoe Bar Ranch Unit 34	
Completion Date: 9-20-78	Total Depth: 13,011	Plug Back TD: 12,919	Elevation: 3971.3
Farm or Lease Name:			
Csg. Size: 4½ & 5½ / Wt.: 11.6 / d: / Set At: 13,011	Perforations: From 12,456 To 12,479	Well No.: 1	
Tbg. Size: 2 7/8 / Wt.: 6.7 / d: / Set At: 11,825	Perforations: From To	Unit: N / Sec.: 34 / Twp.: 16-S / Rge.: 35E	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single	Packer Set At: PBR 11,818	County: Lea	
Producing Thru: Tubing	Reservoir Temp. °F: 188 @12,568	Mean Annual Temp. °F: 68	Baro. Press. – P_a: 13.2
State: New Mexico			

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
10,000	10,000	.642	None	None	None		4.026	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						4794		Packer		
1.	4.026	1.50	260	8	74	4497	71	in Well		60 Min.
2.	4.026	1.50	385	12	75	4291	72			60 Min.
3.	4.026	1.50	508	17	76	3941	73			60 Min.
4.	4.026	1.50	490	34	82	3325	74			60 Min.
5.										

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	10.84	46.75	273.2	.9868	1.248	1.025	640
2.	10.84	69.13	398.2	.9859	1.248	1.036	955
3.	10.84	94.13	521.2	.9850	1.248	1.047	1313
4.	10.84	130.8	503.2	.9795	1.248	1.045	1811
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	.41	534	1.44	.952
2.	.59	535	1.44	.932
3.	.78	536	1.44	.912
4.	.75	542	1.46	.916
5.				

Gas Liquid Hydrocarbon Ratio 32.67 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 53 Deg.
Specific Gravity Separator Gas .642 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure 670 P.S.I.A. ____ P.S.I.A.
Critical Temperature 372 R ____ R

P_c 6447.2 P_c^2 41566

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		6117.2	37420	4146
2		5851.2	34237	7329
3		5412.2	29292	12274
4		4672.2	21829	19737
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.11$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.6219$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2937$

Absolute Open Flow 2937 Mcfd @ 15.025 | Angle of Slope θ 56.5 | Slope, n .659

Remarks: PW Substituted for PT Measured with Amerada Instrument No. 34515 - 0-8000# Element

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