

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

SF file
RECEIVED
JUN 9 1982

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 5-27-82		O.C.C.D. MARTINEA OFFICE	
Company H.N.G. Oil Co. ✓				Connection Llano, Inc.			
Pool <i>find morrow</i> Wildcat				Formation Morrow		Unit	
Completion Date 4-16-82		Total Depth 12550		Play Back TD 12,504		Elevation 3128 GL	
Term. or Lease Term Smith 10 Com.							
Csg. Size 4 1/2	Wt. 13.5	d 	Set At 12,550'	Perforations: From 11710 To 12482		Well No. 1	
Tub. Size 2 3/8	Wt. 4.7	d 	Set At 10,286'	Perforations: From To		Unit Sec. Twp. Rge. 10 24S 27E	
Type Well - Single - Prodenhead - G.G. or G.O. Multiple Single				Packer Set At 10,285		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 197 @ 12096		Mean Annual Temp. °F 68		Baro. Press. - P _a 13.2	
State New Mexico							
L 10,285	H 10,285	G _g .579	% CO ₂ .244	% N ₂ 0	% H ₂ S 0	Prover	Meter Run 3.068
						Type 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							2952				
1.	3.068		1.50	480	7	82	2667	70	Packer		60 Min.
2.	3.068		1.50	480	12	75	2520	70			60 Min.
3.	3.068		1.50	480	24	65	2295	71			60 Min.
4.	3.068		1.50	480	57	59	1763	71			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 F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mhd
1	11.13	58.76	493.2	.9795	1.314	1.039	875
2	11.13	76.93	493.2	.9859	1.314	1.039	1152
3	11.13	108.80	493.2	.9952	1.314	1.039	1645
4	11.13	167.67	493.2	1.001	1.314	1.039	2550
5							

NO.	P _t	Temp. °F	T _g	Z	Gas Liquid Hydrocarbon Ratio 558 Mcf/bbl.
1	.73	542	1.55	.927	A.P.I. Gravity of Liquid Hydrocarbons 45. Deg.
2	.73	535	1.53	.927	Specific Gravity Separator Gas .579 X X X X X X X X
3	.73	525	1.50	.927	Specific Gravity Flowing Fluid X X X X X
4	.73	519	1.48	.927	Critical Pressure 672 P.S.I.A. P.S.I.A.
5					Critical Temperature 350 R R

P _c 3746.2 P _c ² 14034			
NO.	P _t ²	P _w	P _w ²
1		3510.2	12323
2		3347.2	11204
3		3107.2	9655
4		2597.2	6745
5			

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{1.925}{1.925 - 1.7497} = 1.925$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4461$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.7497$

Absolute Open Flow 4461 Mhd @ 15.025	Angle of Slope 49.5	Slope, n .854
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Remarks: PW Substituted for Pt - Measured with Amerada Instrument No. 6557 0 - 5600# Element

Approved by Commission:	Conducted By: Pyle	Calculated By: Sprue11	Checked By: Pyle
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