

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 6-21-88			
Company Manzano Oil Corporation				Connection None					
Pool <i>South Corbin Morrow</i>				Formation Lower Morrow				Unit	
Completion Date 6-1-88		Total Depth		Plug Back TD 13420		Elevation		Farm or Lease Name Sun Corbin Federal Com.	
Coq. Size 5.500	Wt. 17.20	d 4.892	Set At 13515	Perforations: From 13204 To 13272		Well No. 1			
Thq. Size 2.875	Wt. 6.50	d 2.441	Set At 13097	Perforations: From Open ended To		Unit 26		Twp. 18S	Rge. 33E
Type Well - Single - Drdendhead - G.C. or G.O. Multiple Single						Packer Set At 13103		County Lea	
Producing Thru Tubing		Reservoir Temp. °F 182 @ 13038'		Mean Annual Temp. °F 70		Baro. Press. - P _a 13.2		State New Mexico	
L 13238	H 13238	Cg 0.674	% CO ₂ 0.32	% N ₂ 0.95	% H ₂ S 0	Prover 0	Meter Run 2.900	Taps Flange	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI	406.25 hours										
1.	2.900 x 0.750			198	30	120	3854	84	700	-	1 hour
2.	2.900 x 0.750			200	58	120	3677	84	700	-	1 hour
3.	2.900 x 1.500			200	6	117	3485	82	700	-	1 hour
4.	2.900 x 1.500			200	23.5	96	2997	81	700	-	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 Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	2.675	79.60	211.2	0.9469	1.218	1.017	249.749
2	2.675	111.20	213.2	0.9469	1.218	1.017	348.902
3	11.23	35.77	213.2	0.9493	1.218	1.017	472.303
4	11.23	70.78	213.2	0.9671	1.218	1.019	954.113
5							

NO.	P _f	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.					14.507	
2.					52.0	
3.					0.674	
4.						
5.						

A.P.L. Gravity of Liquid Hydrocarbons				Specific Gravity Separator Gas		Specific Gravity Flowing Fluid		Critical Pressure		Critical Temperature	
52.0				0.674		XXXXXX		669		380	
USED SIMPLIFIED SUPERCOMPRESSIBILITY TABLES				P.S.I.A.		P.S.I.A.		R		R	

NO.	P _f	P _s	P _s	P _f ² - P _s ²	(1) $\frac{P_f^2}{P_f^2 - P_s^2} = 2.385696$	(2) $\left[\frac{P_f^2}{P_f^2 - P_s^2} \right]^n = 2.385696$
1	6182.7	38226		5732.9		
2				5508.6		
3				5291.2		
4				4712.0		
5						

Absolute Open Flow				Mcf/d @ 15.025		Angle of Slope @		Slope, n	
2276.224						45°		1.000	

Remarks: Bottomhole pressure measured with Amerada RPG-3 Gauge, Serial No. 47612, 0-8000 psi

Approved By Division	Conducted By	Calculated By	Checked By
	Tefteller, Inc.	Farrest Tefteller	