

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

Form C-122
Revised 9-1-65

1972

D. C. C.

ARTESIA, OFFICE

Type Test ☐ Initial ☐ Annual ☒ Special					Test Date 4-18-72		ARTESIA, OFFICE	
Company Texas Oil & Gas Corp.				Connection Marathon Oil Co.				
Pool Indian Basin Upper Penn				Formation Upper Penn				Unit
Completion Date 11-23-71		Total Depth 7700		Plug Back TD 7664		Elevation 4205 KDB		Farm or Lease Name Helbing Federal
Csg. Size 4 1/2"	Wt. 9.5-11.6#	d 	Set At 7698	Perforations: From 7471 To 7554		Well No. 1		
Thq. Size 2 3/8"	Wt. 4.7	d 1.995	Set At 7406	Perforations: From To		Unit 22	Sec. 22S	Twp. Rje. 23E
Type Well - Single - Bradenhead - G.G. or G.C. Multiple Single					Packer Set At 7406		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 120 @ 7700		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico
L 7406	H 7406	G _g .686	% CO ₂ 0.38	% N ₂ 0.95	% H ₂ S -	Prover	Meter Run 2"	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	Duration of Flow
SI							1945		-		
1.	2.067 X		1.500	7.60	2.8	75	1810	81	Packer		45"
2.	2.067 X		1.500	7.65	4.0	75	1734	82	Packer		60"
3.	2.067 X		1.500	7.68	5.3	76	1590	84	Packer		60"
4.	2.067 X		1.500	7.75	6.3	76	1446	82	Packer		60"
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	57.063	21.280	1155	.9859	1.207	1.123	1622
2	57.063	30.600	1170	.9859	1.207	1.124	2336
3	57.063	40.704	1180	.9850	1.207	1.125	3106
4	57.063	48.825	1201	.9850	1.207	1.129	3740
5							

NO.	P _t	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio 112.725 Mcf/bbl.
1.	1.716	75	1.393	.793	A.P.I. Gravity of Liquid Hydrocarbons Deg.
2.	1.738	75	1.393	.791	Specific Gravity Separator Gas .686 X X X X X X X X
3.	1.753	76	1.396	.790	Specific Gravity Flowing Fluid X X X X X .711
4.	1.785	76	1.396	.785	Critical Pressure 673 P.S.I.A. 672 P.S.I.A.
5.					Critical Temperature 384 R 394 R

P _c 1958.2 P _c ² 3834.5					(1) $\frac{P_c^2}{P_c^2 - R_w^2} = 3.67994$		(2) $\left[\frac{P_c^2}{P_c^2 - R_w^2} \right]^n = 2.662$	
NO	P _t ²	P _w	P _w ²	P _c ² - R _w ²				
1	3324.1	1823.2	3385.0	449.5				
2	3052.7	1747.2	3171.5	663.0				
3	2570.2	1603.2	2792.5	1042.0				
4	2129.3	1459.2	2449.4	1385.1				
5								

Absolute Open Flow 8268 Mcfd @ 15.025					Angle of Slope 0		Slope, n .75203	
Remarks:								
Approved By Commission: Conducted By: Calculated By: Checked By:								