

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

Form C-122
 Revised 9-1-65

AUG 25 1972

Type Test ☐ Initial ☒ Annual ☐ Special					Test Date 8-18-72		O. C. C. ARTESIA, OFFICE		
Company CITIES SERVICE OIL COMPANY					Connection El Paso Natural				
Pool Washington Ranch					Formation Morrow		Unit		
Completion Date 5-4-72		Total Depth 6980		Plug back TD 6950		Elevation 3717 GL		Farm or Lease Name Government M	
Csg. Size 5 1/2"	Wt. 15.5	d 4.892	Set At 6979	Perforations: From 6815 To 6888		Well No. 2			
Tbg. Size 2 7/8	Wt. 6.4	d 2.441	Set At 6732	Perforations: From To		Unit Sec. Twp. Rge. N 27 25S 24E			
Type Well - Single - Broadhead - G.G. or G.O. Multiple Single					Packer Set At 6732		County Eddy		
Producing Thru Tubing		Reservoir Temp. °F 124 @ 6825		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico	
L 6815	H 6815	Gg .570	% CO ₂ .05	% N ₂ 1.56	% H ₂ S .04 GR	Prover 	Meter Run 4"	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.	
SI	72 Hr.		S.I.				2308		Packer	
1.	4"		2"	852	23.5	87	2017	77		
2.	4"		2"	857	42.5	84	1935	75		
3.	4"		2"	839	62.3	85	1787	78		
4.	4"		2"	846	83.7	88	1602	72		
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, F _{pv}	Rate of Flow Q, Mcfd
1	19.81	142.59	865.2	.9750	1.325	1.054	3846
2	19.81	192.31	870.2	.9777	1.325	1.056	5212
3	19.81	230.42	852.2	.9768	1.325	1.055	6233
4	19.81	268.17	859.2	.9741	1.325	1.054	7227
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mct/bbl.
1	1.29	547	1.59	.900	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2	1.30	544	1.58	.896	Specific Gravity Separator Gas _____ X X X X X X X X
3	1.27	545	1.58	.898	Specific Gravity Flowing Fluid _____ X X X X X
4	1.28	548	1.59	.901	Critical Pressure _____ 670 P.S.I.A. _____ P.S.I.A.
5					Critical Temperature _____ 345 R _____ R

NO.	P _c	P _w	R _w	P _c ² - R _w ²
1	2718.2	2378.2	5655.8	1732.8
2		2295.2	5267.9	2120.7
3		2152.2	4632.0	2756.6
4		1988.2	3952.9	3435.7
5				

$$(1) \frac{P_c^2}{P_c^2 - R_w^2} = 2.68$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - R_w^2} \right]^n = 12,291$$

$$(2) \left[\frac{P_c^2}{P_c^2 - R_w^2} \right]^n = 1.972$$

Absolute Open Flow 12,291 Mcfd @ 15.025		Angle of Slope θ _____	Slope, n .691
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Remarks: P_w was taken from BHP 72 hrs P_w before test = 2680 72 hrs P_w after test = 2705
 BTU = 1010

Approved By Commission:	Conducted By: Nichols & Dollahan	Calculated By: S.C. Nichols	Checked By: Brad Bennett
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