

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

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 1-27-81		RECEIVED	
Company Cities Service Co.				Connection To Atmosphere				FEB 09 1981	
Pool <i>McIntosh & Wolfcamp</i>				Formation Wolfcamp				Unit O. C. D.	
Completion Date 1-25-81		Total Depth 11,500		Blow Back To 10,550		Elevation 3257		Form of Lease Name Government "Y"	
Csg. Size 5 1/2"	Wt. 17#	d 4.892	Set At 11,500	Perforations: From 9502 To 9517		Well No. 2			
Tbg. Size 2 7/8"	Wt. 6.5	d 2.441	Set At 9404	Perforations: From Open-ended To		Unit K		Sec. <i>20</i> Twp. <i>23S</i> Rge. <i>28E</i>	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 9386		County Eddy	
Producing Thru Tubing		Reservoir Temp. *F 176 @ 9509		Mean Annual Temp. *F 60°		Baro. Press. - P _a 13.2		State New Mexico	
L 9404	H 9404	G _g .7900	% CO ₂ 1.565	% N ₂ 3.569	% H ₂ S -0-	Prover	Meter Run 4"	Taps Flg.	

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							1470	60°	Pkr.	Choke	72 Hrs.
1.	4	X	.750	450	6"	78°	710	60°		12/64	1 Hr.
2.	4	X	.750	450	5"	77°	729	60°		10/64	1 Hr.
3.	4	X	.750	450	4.5"	74°	785	60°		8/64	1 Hr.
4.	4	X	.750	450	2"	72°	837	61°		6/64	1 Hr.
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	2.661	52.72	463.2	.9831	1.125	1.059	164.3
2	2.661	48.12	463.2	.9840	1.125	1.061	150.4
3	2.661	45.66	463.2	.9868	1.125	1.061	143.1
4	2.661	30.44	463.2	.9887	1.125	1.061	95.59
5							

NO.	P _r	Temp. *R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.G. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	.676	538	1.32	.891	41.72 Mcf/bbl.				666 P.S.I.A.	409 R
2	.676	537	1.31	.889						
3	.676	534	1.31	.889						
4	.676	532	1.30	.888						
5										

P _c 2371		P _c ² 5621.6		(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.853$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.853$	
NO	P _t ²	P _w	P _w ²	P _c ² - P _w ²			
1		1800.5	3241.8	2379.8			
2		1677.1	2812.7	2808.9			
3		1619.2	2621.7	2999.8			
4		1608.7	2587.9	3033.7			
5							

Absolute Open Flow 304.4 Mcfd @ 15.025 Angle of Slope @ 45° Slope, n 1.000

Remarks: Used a 45° Angle thru high rate of flow.
Made 15 Rbbls condensate during test.

Approved By Commission:	Conducted By: M.B.	Calculated By: M.K.	Checked By: M.K.
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