

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

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Repeat						Test Date 7-24-78		AUG - 7 1978	
Company CITIES SERVICE CO.						TO AIR		Unit O. C. C.	
Well <i>Winchester Wolfcamp</i> UNDESIG.						WOLFCAMP		ARTEZIA, OFFICE H	
Length of Test 7-24-78		Depth of Well 11375'		Perforations 9235'		Elevation 3362.8 G.R.		Form or Lease Name STATE CY	
Test Size 5 1/2"	Wt. 17	d 4.892	Set At 11375'	From 9133' To 9167'		Well No. 1			
Test Size 2 7/8"	Wt. 6.5	d 2.441	Set At 9027'	From OPEN To ENDED		Unit H		Sec. 26	Twp. 19S
Type Well - Single - Ardenhead - G.C. or G.O. Multiple SINGLE						Packoff Set At 9017'		County EDDY	
Producing Thru TUBING		Reservoir Temp. °F 166° @ 9150'		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2		State NEW MEXICO	
L 9150'	H 9150'	G _g .654	% CO ₂ .08	% N ₂ 1.24	% H ₂ S	Prover	Meter Run 4"	Flaps 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							1351				72 HOUR
1.	4	x	1.250	540	4	71	909				1 HOUR
2.	4	x	1.250	560	9	68	1068				1 HOUR
3.	4	x	1.250	570	18	68	958				1 HOUR
4.	4	x	1.250	570	28.5	70	842				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 F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mhd
1	7.469	47.04	553.2	.9896	1.237	1.054	453
2	7.469	71.82	573.2	.9924	1.237	1.058	697
3	7.469	102.46	583.2	.9924	1.237	1.058	994
4	7.469	128.92	583.2	.9905	1.237	1.058	1248
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.L. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	.83	531	1.42	.900	1.588	49 @ 60	.654	X X X X X X X X	670	375
2	.86	528	1.41	.894				X X X X X		
3	.87	528	1.41	.893						
4	.87	530	1.41	.893						
5										

P _c 2370.2	P _w 5617.8	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.043$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.842$
NO.	P _c ²	P _w ²	P _c ² - P _w ²
1	2360.8	5573.4	44.4
2	2230.1	4973.3	644.5
3	2093.2	4381.5	1236.3
4	1942.1	3771.8	1846.0
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Absolute Open Flow	2,299	Mhd @ 15.025	Angle of Slope	61.25	Slope, n	.549
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Remarks: * CALCULATED FROM KNOWN BOTTOM HOLE PRESSURES. BOTTOM HOLE PRESSURES MEASURED WITH KUSTER GAUGE. WELL MADE 89 BBLs COND. 3 BBLs WATER DURING TEST.

Approved By Commission:	Conducted By: B.R.D.	Calculated By: R.R.	Checked By: J.W.W.
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