

RECEIVED
JUN 2 1972

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test D.E.C. ARTESIA, OFFICE		☐ Annual ☒ Special		Test Date 5/17/72	
Company Black River Corporation		Connection El Paso Natural Gas Co.			
Pool Washington Ranch		Formation Morrow		Unit I	
Completion Date 2/17/72		Total Depth 7070		Elevation 3763 KB	
Casing Size 5-1/2		Set in 7067		Perforations From 6921 To 6968	
Well No. 3		Farm or Lease Name Cities Federal		Unit Sec. Twp. R. 33 25S 24E	
Type Test - Single - Stimulated - G.G. or G.O. Multiple Single		Packer Set At 6885		County Eddy	
Pressure Trans. Tubing		Reservoir Temp. °F 138 6945		State New Mexico	
Mean Annual Temp. °F 60		Depth Pressure - P _d 13.2		Prover Meter Run 4	
G _g 0.570		Prover Flange		Tape Flange	

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Size	Orifice Size	Press. psia	Diff. in. H ₂ O	Temp. °F	Press. psia	Temp. °F	Press. psia	Temp. °F		
1	24 hrs.					2439	74				
2	4 x	2.000	895	10.8	68	2287	79				1 hr.
3	4 x	2.000	898	23.6	68	2190	82				1 hr.
4	4 x	2.000	898	36.0	67	2102	84				1 hr.
5	4 x	2.000	900	54.8	66	1987	86				1 hr.

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (14 Hour)	$\sqrt{P_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcf
1	19.81	99.04	908.2	0.9924	1.325	1.066	2750
2	19.81	146.60	911.2	0.9924	1.325	1.067	4075
3	19.81	181.15	911.2	0.9933	1.325	1.068	5044
4	19.81	223.70	913.2	0.9943	1.325	1.068	6235

NO.	P _d	Temp. °R	T _g	Z	Gas Liquid Hydrocarbon Ratio	Dry	Mcf/cu. ft.
1	1.35	528	1.53	0.880	A.P.I. Gravity of Liquid Hydrocarbons	-	Deg.
2	1.36	528	1.53	0.879	Specific Gravity Separator Gas	XXXXXX	
3	1.36	527	1.52	0.876	Specific Gravity Flowing Fluid	XXXXX	
4	1.36	526	1.52	0.876	Critical Pressure	672	P.S.I.A.
					Critical Temperature	346	R

NO.	P _d	P _w	P _w ²	P _d ² - P _w ²	(1) $\frac{P_d^2}{P_d^2 - P_w^2}$	(2) $\left[\frac{P_d^2}{P_d^2 - P_w^2} \right]^n$
1	5290.2		5343.02	670.3	3.4627	2.98
2	4854.1		4971.00	1042.3		
3	4474.1		4654.27	1359.0		
4	4000.8		4276.69	1736.6		

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