

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

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☐ Initial ☐ Annual ☒ Special				Test Date 11-17-73		NOV 27 1973	
Company BRUNSON & MCKNIGHT INC.				Connection TRANSWESTERN PIPELINE COMPANY			
Pool WEST ATOKA				Formation MORROW		Unit G.G.G. ARTESIA, OFFICE	
Completion Date 8-4-73		Total Depth 8904'		Plug Back TD 8782'		Elevation 3453 RDB	
Csg. Size 4 1/2"		Wt. 11.6		d 4.082		Set At 8904'	
Thg. Size 2 3/8"		Wt. 4.5		d 1.995		Set At 8660'	
Perforations: From 8676' To 8734'				Well No. 2			
Perforations: From OPEN To ENDED				Unit Sec. Twp. Rge. H 13 18S 25 E			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE				Packer Set At 8660'		County EDDY	
Producing Thru TUBING		Reservoir Temp. °F 147° @ 8735'		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2	
L 8660'		H 8660'		G _g 0.632		State NEW MEXICO	
				% CO ₂ 0.47		% N ₂ 0.70	
				% H ₂ S -----		Prover 2"	
						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. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI							1931.0		PACKER	CHOKE	
1.	2" X 0.875"			510.0	13.0	58	1822	67		7/64	1.0 HRS.
2.	2" X 0.875"			510.0	33.0	50	1694.0	64		8/64	1.0 "
3.	2" X 0.875"			510.0	45.0	45	1585.0	64		10/64	1.0 "
4.	2" X 0.875 "			510.0	74.0	45	1401.0	64		12/64	1.0 "
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	3.729	82.47	523.2	1.002	1.258	1.052	408
2	3.729	131.40	523.2	1.010	1.258	1.055	657
3	3.729	153.44	523.2	1.015	1.258	1.059	774
4	3.729	196.77	523.2	1.015	1.258	1.059	992
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.	0.78	518	1.41	.903	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.	0.78	510	1.39	.898	Specific Gravity Separator Gas _____ 0.632
3.	0.78	505	1.37	.892	Specific Gravity Flowing Fluid _____ X X X X X
4.	0.78	505	1.37	.892	Critical Pressure _____ 670 P.S.I.A.
5.					Critical Temperature _____ 368 R

P _c 1944.2 P _c ² 3779.9		(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.1540$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.5835$	
NO	P _r ²	P _w	P _w ²	P _c ² - P _w ²	
1			3372.1	407.8	
2			2925.2	854.7	
3			2569.2	1210.7	
4			2025.1	1754.8	
5					

Absolute Open Flow 1571 Mcfd @ 15.025		Angle of Slope θ 59.1°		Slope, n 0.599	
Remarks: _____					

Approved by Commission:

Conducted by:

D. J. [unclear]

Calculated by:

R. WEST

Checked by:

J.W.W.