

NEW MEXICO 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 9/29-10/2/72		OCT 4 - 1972	
Company EL PASO NATURAL GAS COMPANY				Connection EL PASO NATURAL GAS COMPANY SYSTEM			
Pool Sand Dunes South				Formation Pennsylvanian		Unit B. G. G. ARTESIA, OFFICE	
Completion Date 6-22-72		Total Depth 15,200		Plug Back TD 14,539		Elevation 3402	
Farm or Lease Name Sundance Federal		Well No. 1		Unit F		Sec. Twp. Rge. 4 24 31	
Csg. Size 9 5/8	Wt. 53.5	Set At 12,500	Perforations: From 13,691 To 14,379				
Thg. Size 3 1/2	Wt. 9.3	Set At	Perforations: From To				
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F #		Mean Annual Temp. °F		Baro. Press. - P _a 13.2	
State New Mexico							
L 13,109	H 13,109	G _g .592	% CO ₂	% N ₂	% H ₂ S	Prover	Meter Run 4"
Taps							

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							3323	74			72 hrs.
1.	4	x	.750	735	19.36	88	825	79			24 hrs.
2.											
3.											
4.											
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	120.35	748.2	.9741	1.300	1.058	429.1
2.							
3.							
4.							
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Dry	Mcf/bbl.
1.	1.25	548	1.55	.893	A.P.I. Gravity of Liquid Hydrocarbons	---	Deg.
2.					Specific Gravity Separator Gas	.592	XXXXXXXXXX
3.					Specific Gravity Flowing Fluid	XXXXX	
4.					Critical Pressure	672	P.S.I.A.
5.					Critical Temperature	354	R

P _c 2336.2	P _w 21130.2		
NO.	P _t ²	P _w	P _w ² P _c ² - P _w ²
1		839.1	704.1 10426.1
2			
3			
4			
5			

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.068$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.047$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = .449$

Absolute Open Flow	449	Mcf/d @ 15.025	Angle of Slope @	55	Slope, n	.700
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Remarks: Slope taken from initial multi-point which had good point alignment.

Approved By Commission:	Conducted By: J. B. Murray	Calculated By: J. B. Murray	Checked By:
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