

N MEXICO OIL CONSERVATION COMM ON
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 5-6-76		NOV 09 1976	
Company Harvey E. Yates Co. Inc.				Connection None			S. GEOLOGICAL SURVEY ARTESIA, NEW MEXICO	
Pool W-13001 <i>San Juan</i>				Formation Morrow			Unit	
Completion Date 4-23-76		Total Depth 12059 KB		Plug Back TD 11805		Elevation 3261		Farm or Lease Name Pennzoil Federal
Csg. Size 4 1/2	Wt. 13.50	d	Set At 12059	Perforations: From 11539 To 11678		Well No. 1		
Thq. Size 2 3/8	Wt. 4.65	d	Set At 11400	Perforations: From To		Unit F	Sec. 32	Twp. 20S
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 11400'		County Eddy		
Producing Thru Tubing		Reservoir Temp. *F 183 @ 11308		Mean Annual Temp. *F 70		Baro. Press. - P _a 13.2		State New Mexico
L 10608	H 10608	Gg 0.600	% CO ₂	% N ₂	% H ₂ S	Prover Pos. ck.	Meter Run	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	68 hrs.			3410							
1.	2"	X	8/64"	2294		68	2294	68			60 min.
2.	2"	X	9/64"	1668		70	1668	70			60 min.
3.	2"	X	10/64"	1200		71	1200	71			60 min.
4.	2"	X	11/64"	733		71	733	71			60 min.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	0.2618		2307.2	0.9924	1.291	1.153	892.3
2	0.3346		1681.2	0.9905	1.291	1.130	812.8
3	0.4173		1213.2	0.9896	1.291	1.100	711.5
4	0.5090		746.2	0.9896	1.291	1.062	515.3
5							

NO.	P _t	Temp. *R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Dry Gas	Mcf/bbl.
1	3.44	528	1.47	0.752	A.P.I. Gravity of Liquid Hydrocarbons		Deg.
2	2.51	530	1.48	0.783	Specific Gravity Separator Gas	0.600	X X X X X X X X
3	1.81	531	1.48	0.827	Specific Gravity Flowing Fluid	X X X X X	
4	1.11	531	1.48	0.886	Critical Pressure	671	P.S.I.A.
5					Critical Temperature	358	R

P _f 4490.2 P _f ² 20162				(1) $\frac{P_c^2}{P_c^2 - R_w^2} = 1.14239$		(2) $\left[\frac{P_c^2}{P_c^2 - R_w^2} \right]^n = 1.14239$	
NO.	P _t ²	P _s	P _s ²	P _f ² - P _s ²	AOF = Q $\left[\frac{P_c^2}{P_c^2 - R_w^2} \right]^n = 588.7$		
1		3393.2	11514	8648			
2		2643.2	6987	13175			
3		2099.2	4407	15755			
4		1585.2	2513	17649			
5							

Absolute Open Flow		588.7	Mcf/d @ 15.025	Angle of Slope θ	45°	Slope, n	1.000000
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Remarks: BHP measured with Amerada RPG-3 gauge Serial No. 12468 N 0-6000 psi

Approved By Commission:	Conducted By: Tefteller, Inc.	Calculated By: F. Tefteller	Checked By:
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