

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

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 3-20-84	
Company Harvey E. Yates Company				Connection Llano Pipeline	
Pool Undesignated				Formation Austin Mississippian	
Completion Date 3/7/84		Total Depth 13,600'		Plug Back TD 13,600'	
				Elevation 4020.8'	
Farm or Lease Name Duncan Unit				Unit N	
Csg. Size 5 1/2	Wt. 20#-17#	Set At 4.653"	Set At 13435'	Perforations: From 13435' To 13600'	
Tbg. Size 2 3/8	Wt. 4.7	Set At 1.995"	Set At 13397'	Perforations: From N/A To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 13293	
Producing Thru Tubing		Reservoir Temp. °F 203 @ 13349		Mean Annual Temp. °F 70	
				Baro. Press. - P _a 13.2	
L 13349	H 13349	G _g 0.638	% CO ₂ 1.28	% N ₂ 0.88	% H ₂ S 0
				Prover 2" O.W.T.	
				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	
1.	2" X 500					88	3671	70	Pkr.		
2.	2" X 500					92	3639	70	Pkr.	-	60 mins
3.	2" X 1,000					88	3576	70	Pkr.	-	60 mins
4.	2" X 1,000					56	3431	70	Pkr.	-	60 mins
5.							3048	70	Pkr.	-	60 mins

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	Inches H _g	Pressure Base Correct- ion Factor	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	115	20	0.975	.9741	0.9721	1.003	106.492
2.	191	46	0.975	.9706	0.9721	1.008	177.113
3.	411	16	0.975	.9741	0.9721	1.003	380.594
4.	740	42	0.975	1.0039	0.9721	1.008	709.738
5.							

NO.	P _f	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.					Not measureable	
2.					A.P.I. Gravity of Liquid Hydrocarbons 48.8 @ 60°	Deq.
3.					Specific Gravity Separator Gas 0.638	XXXXXXX
4.					Specific Gravity Flowing Fluid XXXXX	
5.					Critical Pressure 670 P.S.I.A.	P.S.I.A.
					Critical Temperature 368 R	R

USED SIMPLIFIED
SUPERCOMPRESSIBILITY
TABLE

NO.	P _f	P _s	P _f ² - P _s ²
1	5496	30206	777
2	5444	29637	1346
3	5300	28090	2893
4	4999	24990	5993
5			

(1) $\frac{P_f^2}{P_f^2 - P_s^2} = 5.16986$

(2) $\left[\frac{P_f^2}{P_f^2 - P_s^2} \right]^n = 4.60068$

AOF = Q $\left[\frac{P_f^2}{P_f^2 - P_s^2} \right]^n = 3265.278$

Absolute Open Flow	3265.278	Mcf/d @ 15.025	Angle of Slope @	47.1°	Slope, n	.9290
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Remarks: BHP MEASURED WITH AMERADA RPG-3 GUAGE NO. 47613, 0-8000 PSI RANGE

Approved By Commission:	Conducted By: Teffeller, Inc.	Calculated By: Charles M. Avery, Jr.	Checked By:
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MAR 27 1984
O.C.D.
HOBBS OFFICE