

N MEXICO OIL CONSERVATION COMM. ON
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 4-21-80			
Company Harvey E. Yates Company				Connection El Paso Natural Gas			
Pool Undesignated				Formation Austin Mississippian		Unit K	
Completion Date 7-20-79		Total Depth 14000'		Plug Back TD 13478'		Elevation 3965.9 GL	
Farm or Lease Name Austin Monteith							
Csg. Size 5 1/2	Wt. 20.0#	d 4.778'	Set At 14000'	Perforations: From 13360 To 13390		Well No. 1	
Tbg. Size 2 3/8	Wt. 4.7#	d 1.995"	Set At 13303'	Perforations: From To		Unit Sec. Twp. Rge. K 8 14S 36E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 13303		County Lea	
Producing Thru Tubing		Reservoir Temp. °F 188 @ 13275'		Mean Annual Temp. °F 70		Baro. Press. - P _g 13.2	
State New Mexico							
L 13303	H	G _g 0.897	% CO ₂ 4.39	% N ₂ 0.75	% H ₂ S Nil	Prover	Meter Run X
						Taps Flange	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. L-10 Chart	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
51	152 1/2 hours						3338		Pkr.		
1.	4" X 1.750"			4.0	6.5	68	1070	70	"		103 Hrs.
2.	4" X 1.750"			3.8	5.3	62	1670	70	"		5 Hrs.
3.	4" X 1.750"			3.8	3.4	60	2160	70	"		6 Hrs.
4.	4" X 1.750"			3.7	1.8	62	2385	70	"		6 Hrs.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{\frac{h_w P_m}{h_w X P_m}}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	14.93	26.00	3.162	0.9924	1.056	1.029	1323.6
2	14.93	20.14	3.162	0.9981	1.056	1.026	1028.2
3	14.93	12.92	3.162	1.0000	1.056	1.026	660.8
4	14.93	6.66	3.162	0.9981	1.056	1.025	339.7
5			L-10 factor				

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	Used Simplified				34.166 Mcf/bbl.	56.8	0.897	XXXXXX	678 P.S.I.A.	444 R
2	Supercompressibility									
3	Tables									
4										
5										

P _g 5091.2 P _g ² 25920			
NO.	P _g ²	P _w ²	P _g ² - P _w ²
1	1173	1682.2	2830
2	2833	2544.2	6473
3	4723	3338.2	11144
4	5751	3717.2	13818
5			

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.12256$

AGF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1485.826$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.12256$

Absolute Open Flow	1485.826 Mcfd @ 15.025	Angle of Slope	45.0°	Slope, n	1.00000
Remarks:					

Original Signed Approved By Jerry Sexton District Supervisor	Conducted By: Tefteller, Inc.	Calculated By: D.A. Warren, Jr.	Checked By:
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