

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 5-26-80			
Company Harvey E. Yates Co.				Connection El Paso Natural Gas					
Pool Undesignated				Formation Morrow				Unit	
Completion Date		Total Depth 14095'		Plug Back TD 13700'		Elevation 3848.8 GL		Farm or Lease Name Young Deep Unit	
Csg. Size 5 1/2	Wt. 20.0#	d 4.778	Set At 13944'	Perforations: From 12835 To 12845		Well No. 1			
Tbg. Size 2 7/8	Wt. 5.4#	d 2.875	Set At 12801	Perforations: From To		Unit 10	Sec. 18S	Twp. 32E	Rge.
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 12801'		County Lea	
Producing Thru Tubing		Reservoir Temp. °F 182 @ 12790		Mean Annual Temp. °F 70		Baro. Press. - P _a 13.2		State New Mexico	
L 12846	H 12846	Gg 0.681	% CO ₂ 0.44	% 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. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI	69 HOURS						3124		Pkr.	-	
1.	4" X 2.000"			6.5	1.0	101	3070	84	Pkr.	-	60 mins.
2.	4" X 2.000"			6.5	1.7	95	3020	80	Pkr.	-	60 mins.
3.	4" X 2.000"			6.57	4.2	84	3027	82	Pkr.	-	60 mins.
4.	4" X 2.000"			6.57	7.95	79	2887	86	Pkr.	-	60 mins.
5.	L-10 CHART										

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{\frac{h_w P_m}{P_m X h_w}}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	19.81	6.50	3.873	0.9628	1.2118	1.056	614.4
2	19.81	11.05	3.873	0.9680	1.2118	1.059	1053.2
3	19.81	27.59	3.873	0.9777	1.2118	1.062	2663.5
4	19.81	52.23	3.873	0.9822	1.2118	1.064	5074.9
5.							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	9.501 Mcf/bbl.
					A.P.I. Gravity of Liquid Hydrocarbons	55.7 Deg.
1		USED SIMPLIFIED			Specific Gravity Separator Gas	0.681 X X X X X X X X
2		SUPERCOMPRESSIBILITY			Specific Gravity Flowing Fluid	X X X X X
3		TABLES			Critical Pressure	669 P.S.I.A.
4					Critical Temperature	385 R
5.						

P _f 5043.2	P _f ² 25434	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 15.71941$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 8.99950$
NO.	P _t ²	P _f ²	P _f ² - P _t ²
1	5032.2	25323	111
2	5019.2	25192	242
3	4971.2	24713	721
4	4880.2	23816	1618
5			

Absolute Open Flow		45671.486 Mcfd @ 15.025	Angle of Slope θ	51.43°	Slope, n	0.79755
Remarks: BHP Measured with Amerada RPG-3 Gauge No. 9383, 0-6000 P.S.I. Range						
Approved By Commission:		Conducted By:		Calculated By:		Checked By:
D. A. Warren, Jr.		Teffeller, Inc.		D. A. Warren, Jr.		