

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

Form C-122

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 5/23/1996	
Company Yates Petroleum Corporation				Connection Navajo Refining Company			
Pool Antelope Sink 4/Penn				Formation Cisco		Unit	
Completion Date 5/15/1996		Total Depth 8702		Plug Back TD 8154		Elevation 3839	
Farm or Lease Name New Mexico DB State Com							
Csg. Size 5.500		Wt. 17.000		d 4.892		Set At 8702	
Tbg. Size 2.875		Wt. 6.500		d 2.441		Set At 6070	
Perforations: From 6152 To 6362		Perforations: From 6152 To 6362		Well No. # 1		Unit Sec. Twp Rge. F 7 19S 24E	
Type Well Single				Packer Set At 8702		County Eddy	
Producing Thru Tubing		Resv. Temp. °F 142 @ 8281		Mean Temp. °F 62		Baro. Press. - Pa 13.2	
State New Mexico							
L 8702		H 8702		Gg 0.631		%CO ₂ 0.178	
%N ₂ 0.904		%H ₂ S 0.000		Prover 0.000		Meter Run 3.000	
Taps Flange							

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
Sl.	0.000	X	0.000	0	0.0	0	1000	0			0
1.	3.068	X	0.525	260	21.0	60	800	60			24
2.	3.068	X	0.525	260	48.0	60	620	60			24
3.	3.068	X	0.525	260	71.0	60	440	60			24
4.	3.068	X	0.525	260	89.0	60	260	60			24
5.		X									

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{hwPm}$	Pressure Pm	Flow Temp. Factor Ft	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1.	1.183	75.7	273.2	1.0000	1.259	1.025	116
2.	1.183	114.5	273.2	1.0000	1.259	1.025	175
3.	1.183	139.3	273.2	1.0000	1.259	1.025	213
4.	1.183	155.9	273.2	1.0000	1.259	1.025	238
5.							

NO.	Pr	Temp °R	Tr	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl
					0	
					A.P.I. Gravity of Liquid Hydrocarbons	0.000
1.	0.41	520	1.43	0.951	Specific Gravity Separator Gas	0.631
2.	0.41	520	1.43	0.951	Specific Gravity Flowing Fluid	0.631
3.	0.41	520	1.43	0.951	Critical Pressure	670 P.S.I.A.
4.	0.41	520	1.43	0.951	Critical Temperature	363 °R
5.						

NO.	Pc	Pw	Pwf	Pc ² - Pwf ²
1.	661.3	813.3	661.4	365.2
2.	400.9	633.4	401.2	625.3
3.	205.4	453.7	205.8	820.7
4.	74.6	274.2	75.2	951.4
5.				

Pc 1013.2 Pc ² 1026.6		(1) $\frac{Pc^2}{Pc^2 - Pwf^2} = 1.251$	(2) $\left[\frac{Pc^2}{Pc^2 - Pwf^2} \right]^n = 1.184$
AOF = Q		$\left[\frac{Pc^2}{Pc^2 - Pwf^2} \right]^n = 252$	

Absolute Open Flow 252 Mcfd @ 15.025	Angle of Slope θ 37	Slope, n 0.753
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Remarks:			
Approved By Commission:		Conducted By: Johnny Blount	
Calculated By: Mykol Reno		Checked By:	