

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

Form C-122 *clsf*
File

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 10/22/1993			
Company Yates Petroleum Corp				Connection Yates Petroleum Corp					
Pool Upper Penn				Formation Indian Basin				Unit	
Completion Date 10/18/93		Total Depth 7981		Plug Back TD 7925		Elevation 3932		Farm or Lease Name Brannigan ANF Federal	
Csg. Size 7.000	Wt 20.000	d 6.456	Set At 7981	Perforations From 7430 To 7554		Well No. 1			
Tbg. Size 2.875	Wt 6.500	d 2.441	Set At 7004	Perforations From 7430 To 7554		Unit D	Sec 6	Twp. 22S	Rge. 24E
Type Well Single						Packer Set At 7004		County Eddy	
Producing Thru Tubing		Resv. Temp. °F 138 @ 7820		Mean Temp. °F 62		Baro. Press. - Pa 13.2		State New Mexico	
L 7004	H 7004	Gg 0.657	%CO ₂ 0.654	%N ₂ 0.770	%H ₂ S 0.764	Prover 0.000	Meter Run 3.000	Taps Flange	

FLOW DATA						TUBING DATA		CASING DATA		Duration	
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	of Flow
1	0.000	x	0.000	0	0.0	0	320	0			0
2	3.068	x	1.500	98	9.8	57	280	62			24
3	3.068	x	1.500	98	32.3	55	220	62			24
4	3.068	x	1.500	100	57.0	52	160	62			24
5	3.068	x	1.500	100	76.0	53	100	62			24

RATE OF FLOW CALCULATIONS							
NO	Coefficient (24 Hour)	$\sqrt{hwP_m}$	Pressure P _m	Flow Temp Factor Ft	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	11.130	33.0	111.1	1.0029	1.234	1.011	459
2	11.130	59.8	111.0	1.0048	1.234	1.011	835
3	11.130	80.3	113.2	1.0078	1.234	1.012	1125
4	11.130	92.8	113.2	1.0068	1.234	1.012	1297

NO	Pr	Temp °R	Tr	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature	Mcf/bbl. Deg
1	0.16	517	1.39	0.978	0	0.000	0.657	XXXXXXXXXX	676	373	
2	0.16	515	1.38	0.978							
3	0.17	512	1.37	0.977							
4	0.17	513	1.38	0.977							

NO	P _i	P _w	P _w ²	P _c ² - P _w ²
1	86.0	296.3	87.8	23.2
2	54.4	245.9	60.5	50.5
3	30.0	202.9	41.2	69.9
4	12.8	166.8	27.8	83.2

(1) $\frac{P_{c^2}}{P_{c^2} - P_{w^2}} = 1.589$ (2) $\left[\frac{P_{c^2}}{P_{c^2} - P_{w^2}} \right]^n = 1.458$

AOF = Q $\left[\frac{P_{c^2}}{P_{c^2} - P_{w^2}} \right]^n = 1640$

Absolute Open Flow	1640		Mcf/d @ 15.025	Angle of Slope	0 39	Slope, n	0.814
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Remarks

Approved By Commission	Conducted By. Ron Beasley	Calculated By Andrea Carpenter	Checked By.
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