

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

45X
Form C-1
FILE

JUL 22 '88

Type Test [] Initial [] Annual [x] Special					Test Date 5/14/84			
Company Yates Petroleum Corporation					Connection Transwestern Pipeline Company		O. C. D. ARTESIA, OFFICE	
Pool Kennedy Farms ATOICA					Formation Morrow		Unit	
Completion Date 3/2/83		Total Depth 8875.0'		Plug Back TD 8832.0'		Elevation 3317.0'		Farm or Lease Name Berry "EE" Com
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 8872.0'	Perforations: From 8723.0' To 8743.0'		Well No. 2		
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set At 8666.0'	Perforations: From 0.0' To 0.0'		Unit Sec Twp Rge G 23 17S 26E		
Type Well Single					Packer Set At 8667.0'		County Eddy	
Producing Thru Tubing		Resv. Temp. °F 151 @ 8733'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.		State New Mexico
L 8666.0'	H 8666.0'	Gg .622	%CO2 .70	%N2 .36	%H2S 0.00	Prover 0.000"	Meter Run 2.000"	Taps Flange

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow
NO	Prover Orifice Size X Size	Press. psig	Diff. hw	Temp. °F	Press. psig	Temp. °F	Press. psig	Temp. °F	
SI	0.000 X 0.000	0	0.0	75	2350	0	0	0	0 hrs.
1.	2.067 X .875	345	17.7	75	1975	62	0	0	24 hrs.
2.	2.067 X .875	350	23.2	75	1853	62	0	0	24 hrs.
3.	2.067 X .875	350	52.1	75	1513	62	0	0	24 hrs.
4.	2.067 X .875	370	70.0	75	1185	62	0	0	24 hrs.
5.	0.000 X 0.000	0	0.0	0	0	0	0	0	0 hrs.

RATE OF FLOW CALCULATIONS

NO	Coefficient (24 HOUR)	√hwPm	Pressure Pm	Flow Temp Factor Ft.	Gravity Factor Fg	Super Compress. Fact. Fpv	Rate of Flow Q, Mcfd
1.	3.729	79.62	358.20	.986	1.268	1.028	382
2.	3.729	91.79	363.20	.986	1.268	1.028	440
3.	3.729	137.56	363.20	.986	1.268	1.028	659
4.	3.729	163.78	383.20	.986	1.268	1.030	786
5.	0.000	0.00	0.00	0.000	0.000	0.000	0

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
1.	.53	535	1.48	.946	126.000 Mcf/bbl.	0.000 Deg.	.622	xxxxxxx	673.7 PSIA	361.1°R
2.	.54	535	1.48	.946				xxxxxxx	672.4 PSIA	373.4°R
3.	.54	535	1.48	.946						
4.	.57	535	1.48	.942						
5.	0.00	0	0.00	0.000						

Pc 2363.2 Pc² 5584.7					$ROF = Q \left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 1000 \text{ Mcfd}$	
NO	Pt²	Pw	Pw²	Pc²-Pw² (1)	$\frac{Pc^2}{Pc^2 - Pw^2}$	$\left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n$
1.	3952.9	1989.1	3956.4	1628.3	1.3606	1.2715
2.	3482.7	1867.4	3487.3	2097.4		
3.	2329.3	1529.7	2339.9	3244.8		
4.	1435.7	1204.8	1451.5	4133.2		
5.	0.0	0.0	0.0	0.0		

Absolute Open Flow 1000 Mcfd @ 15.025 Angle of Slope, 0 38 Slope, n .780

Remarks: No sale of oil yet, unable to obtain API Gravity.

Approved By:	Conducted By: Tracy Richardson	Calculated By: Andie Carpenter	Checked By:
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Adopted 9-1-65

DATE 7/6/84

COMPANY Yates Petroleum Corporation LEASE Berry "EE" Com WELL NO. 2LOCATION: Unit G Section 23 Township 17S Range 26EL 8666.0 H 8666.0 L/H 1.000 G .659 %CO₂ .70 %N₂ .36 %H₂S 0.00d 1.995 Fr .017777 GH 5713.6 Pcr 672.4 Tcr 373.4

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.382	.440	.659	.786	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	611.0	611.0	611.0	611.0	0.0
4 T=(Tw+Ts)/2	566.5	566.5	566.5	566.5	0.0
5 Z(Est.)	.781	.783	.799	.828	0.000
6 TZ	442.4	443.6	452.6	469.2	0.0
7 GH/TZ	12.914	12.880	12.624	12.178	0.000
8 e ^s (Table XIV)	1.623	1.621	1.605	1.579	0.000
9 1-e ^{-s} (Table XIV)	.384	.383	.377	.367	0.000
10 Pt	1988.2	1866.2	1526.2	1198.2	0.0
11 Pt ² /1000	3952.9	3482.7	2329.3	1435.7	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	7.865	7.886	8.046	8.341	0.000
14 FcQm	3.001	3.471	5.306	6.560	0.000
15 L/H(FcQm) ²	9.008	12.044	28.157	43.034	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	3.458	4.614	10.618	15.776	0.000
17 Pw ² =Pt ² +Fw	3956.4	3487.3	2339.9	1451.5	0.0
18 Ps ² =e ^s Pw ²	6421.1	5652.6	3756.5	2291.5	0.0
19 Ps	2534.0	2377.5	1938.2	1513.8	0.0
20 P=(Pt+Ps)/2	2261.1	2121.9	1732.2	1356.0	0.0
21 Pr=(P/Pcr)	3.36	3.16	2.58	2.02	0.00
22 Tr=(T/Tcr)	1.52	1.52	1.52	1.52	0.00
23 Z(Table XI)	.781	.783	.799	.828	0.000

Company	Yates Petroleum Corporation
Well	Berry "EE" Com No.
Location	G, 23-17S-26E
County	Eddy
Date	7/6/84

$P_c^2 - P_w^2$, THOUSANDS

