

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

Form C-122 *015F*
F.12

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 01/16/1992			
Company Yates Petroleum Corp				Connection Yates Petroleum Corp					
Pool Morrow				Formation Foster Ranch				Unit	
Completion Date 12/21/91		Total Depth 9282		Plug Back TD 9197		Elevation 3717		Farm or Lease Name Albert AJH	
Csg Size 5.500	Wt 17.000	d 4.892	Set At 9282	Perforations From 8842 To 8998		Well No. 1			
Tbg Size 2.875	Wt 6.500	d 2.441	Set At 8768	Perforations From 8842 To 8998		Unit A		Sec. 21	Twp. 20S
Type Well Single				Packer Set At 8768		County Eddy			
Producing Thru Tubing		Resv. Temp. °F 151 @ 8852		Mean Temp. °F 62		Baro. Press. - Pa 13.2		State New Mexico	
L 8768	H 8768	Gg 0.586	%CO ₂ 0.519	%N ₂ 0.000	%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
SI	0.000	x	0.000	0	0.0	0	1825	0			0
1	3.068	x	1.250	940	0.7	45	1750	62			24
2	3.068	x	1.250	1400	2.0	43	1633	62			24
3	3.068	x	1.250	1286	3.7	40	1517	62			24
4	3.068	x	1.250	1400	7.0	45	1400	62			24
5		x									

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	7.577	25.3	952.9	1.0148	1.306	1.089	277
2	7.577	53.2	1413.2	1.0168	1.306	1.133	606
3	7.577	69.1	1299.4	1.0198	1.306	1.127	786
4	7.577	99.5	1413.2	1.0148	1.306	1.131	1129
5							

NO	Pr	Temp °R	Tr	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl
1	1.41	505	1.44	0.843	0	
2	2.09	503	1.43	0.779	0.000	
3	1.93	500	1.43	0.787	0.586	XXXXXXXXXX
4	2.09	505	1.44	0.782	XXXXXXXXXX	0.586
5						

NO	Pt ²	Pw	Pw ²	Pc ² - Pw ²	(1) $\frac{Pc^2}{Pc^2 - Pw^2} =$	(2) $\left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n =$
1	3108.9	1763.4	3109.5	269.5	5.074	4.075
2	2710.0	1647.1	2713.0	666.0		
3	2341.5	1531.9	2346.7	1032.3		
4	1997.1	1417.0	2007.9	1371.1		
5						

Absolute Open Flow 2470		Mcf/d @ 15.025	Angle of Slope 0 41	Slope, n 0.865
Remarks:				

Approved By Commission:	Conducted By: Ed Perry	Calculated By: Andrea Carpenter	Checked By:
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WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (Pw) C-122D

DATE 01/16/1992

COMPANY Yates Petroleum Corp LEASE Albert AJH WELL NO. 1

LOCATION: Unit A Section 21 Township 20S Range 24E

L 8768 H 8768 L / H 1.000 G 0.586 %CO₂ 0.519 %N₂ 0.000 %H₂S 0.000

d 2.441 Fr 0.010495 GH 5138.0 P_{cr} 674.7 T_{cr} 350.5

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	0.277	0.606	0.786	1.129	
2 Tw(W.H.°R)	522	522	522	522	
3 Ts(B.H.°R)	611	611	611	611	
4 T = (Tw+Ts) / 2	566.2	566.2	566.2	566.2	
5 Z (Est.)	0.834	0.839	0.845	0.852	
6 TZ	472.3	475.1	478.5	482.5	
7 GH / TZ	10.878	10.815	10.738	10.649	
8 e ^s (Table XIV)	1.504	1.500	1.496	1.491	
9 1-e ^s (Table XIV)	0.335	0.333	0.331	0.329	
10 Pt	1763.2	1646.2	1530.2	1413.2	
11 Pt ² / 1000	3108.9	2710.0	2341.5	1997.1	
12 Fr (Table XV)	0.010495	0.010495	0.010495	0.010495	
13 Fc = FrTZ	4.957	4.986	5.022	5.064	
14 FcQm	1.37	3.02	3.95	5.72	
15 L / H(FcQm) ²	1.9	9.1	15.6	32.7	
16 Fw = L / H(FcQm) ² (1-e ^s)	0.63	3.05	5.16	10.77	
17 Pw ² = Pt ² +Fw	3109.5	2713.0	2346.7	2007.9	
18 Ps ² = e ^s Pw ²	4675.6	4069.9	3510.3	2993.5	
19 Ps	2162.3	2017.4	1873.6	1730.2	
20 P = (Pt+Ps) / 2	1962.8	1831.8	1701.9	1571.7	
21 Pr = (P / P _{cr})	2.91	2.71	2.52	2.33	
22 Tr = (T / T _{cr})	1.62	1.62	1.62	1.62	
23 Z (Table XI)	0.834	0.839	0.845	0.852	

Company
Well
Location

Yates Petroleum Corp
Albert AJH #1
A 21-20S-24E

County
Date

Eddy
01-16-1992

Q, Mcfd

