

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

Form C-122

ASF
File

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 08/11/1994	
Company Yates Petroleum Corp				Connection Transwestern Pipeline Co	
Pool Abo				Formation Pecos Slope	
Completion Date 6/27/1994		Total Depth 4106		Plug Back TD 4057	
				Elevation 3947	
Farm or Lease Name Camack Federal					
Csg Size 4.500	Wt 10.500	d 4.052	Set At 4106	Perforations: From 3506 To 3515	
Tbg Size 2.375	Wt 4.700	d 1.995	Set At 3427	Perforations: From 3506 To 3515	
Type Well Single				Packer Set At 3429	
Producing Thru				State New Mexico	
Resv Temp. F 91		Meas Temp. F 62		Baro Press. Pa 13.2	
Tubing 3427		Gg 0.636		Prover 0.000	
H 3427		%CO ₂ 0.022		%H ₂ S 0.000	
		%N ₂ 5.889		Meter Run 2.000	
				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	600	0			0
1	2.067	x	1.250	180	2.0	106	570	62			24
2	2.067	x	1.250	165	14.6	103	440	62			24
3	2.067	x	1.250	180	32.0	101	310	62			24
4	2.067	x	1.250	180	45.0	104	180	62			24
5		x									

RATE OF FLOW CALCULATIONS							
NO	Coefficient (24 Hour)	hwPm	Pressure Pm	Flow Temp. Factor Ft	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	8.120	19.7	193.2	0.9585	1.254	1.012	194
2	8.120	51.0	177.7	0.9610	1.254	1.011	504
3	8.120	78.6	193.2	0.9627	1.254	1.012	780
4	8.120	93.2	193.2	0.9602	1.254	1.012	922
5							

NO	Pr	Temp °R	Tr	Z	Gas Liquid Hydrocarbon Ratio	0	Mcft/bbl
					A.P.I. Gravity of Liquid Hydrocarbons	0.000	Deg.
1	0.29	566	1.61	0.977	Specific Gravity Separator Gas	0.636	XXXXXXXXXX
2	0.27	563	1.60	0.978	Specific Gravity Flowing Fluid	XXXXXXXXXX	0.636
3	0.29	561	1.60	0.976	Critical Pressure	661 P.S.I.A	661 P.S.I.A
4	0.29	564	1.60	0.977	Critical Temperature	351 °R	351 °R
5							

Pc	613.2	Pc'	376.0	(1) $\frac{Pc^2}{Pc^2 - Pw^2} = 1.424$	(2) $\left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 1.279$
NO	Pt'	Pw	Pw'	Pc' - Pw'	
1	340.1	583.6	340.6	35.5	
2	205.4	456.5	208.4	167.6	
3	104.5	334.5	111.9	264.1	
4	37.3	218.8	47.9	328.1	
5					

Absolute Open Flow				998	Mcfd @ 15.025	Angle of Slope	0 35	Slope, n	0.697
Remarks									
Approved By Commission:					Conducted By:		Calculated By:		Checked By:
					David Weaver		Andrea Carpenter		

WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (Pw) C-122D

DATE 08/11/1994

COMPANY Yates Petroleum Corp LEASE Camack Federal WELL NO. 10

LOCATION: Unit C Section 10 Township 5S Range 24E

L 3427 H 3427 L/H 1.000 G 0.636 %CO₂ 0.022 %N₂ 5.889 %H₂S 0.000

d 1.995 Fr 0.017777 GH 2179.2 Pcr 661.0 Tcr 351.3

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	0.194	0.504	0.780	0.922	
2 Tw(W.H.°R)	522	522	522	522	
3 Ts(B.H.°R)	551	551	551	551	
4 T = (Tw+Ts) / 2	536.2	536.2	536.2	536.2	
5 Z (Est.)	0.915	0.933	0.951	0.969	
6 TZ	490.5	500.2	509.9	519.5	
7 GH / TZ	4.443	4.357	4.274	4.194	
8 e ^Λ s(Table XIV)	1.181	1.177	1.174	1.170	
9 1-e ^Λ -s(Table XIV)	0.153	0.151	0.148	0.146	
10 Pt	583.2	453.2	323.2	193.2	
11 Pt ² / 1000	340.1	205.4	104.5	37.3	
12 Fr (Table XV)	0.017777	0.017777	0.017777	0.017777	
13 Fc = FrTZ	8.719	8.891	9.064	9.236	
14 FcQm	1.69	4.48	7.07	8.52	
15 L / H(FcQm) ²	2.9	20.1	50.0	72.6	
16 Fw = L / H(FcQm) ² (1-e ^Λ -s)	0.44	3.03	7.41	10.56	
17 Pw ² = Pt ² +Fw	340.6	208.4	111.9	47.9	
18 Ps ² = e ^Λ sPw ²	402.3	245.4	131.3	56.0	
19 Ps	634.3	495.4	362.4	236.7	
20 P = (Pt+Ps) / 2	608.7	474.3	342.8	215.0	
21 Pr = (P / Pcr)	0.92	0.72	0.52	0.33	
22 Tr = (T / Tcr)	1.53	1.53	1.53	1.53	
23 Z (Table XI)	0.915	0.933	0.951	0.969	

