NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122 c15

Type Test: [X] Initial [ ] Annual [ ] Special			Test Date: 8/5/1999	
Company: Yates Petroleum Corp	Connection: Agave Energy Company			
Pool: Crow Flats	Formation: Morrow		Unit:	
Completion Date: 7/31/1999	Total Depth: 8950	Plug Back TD: 8904	Elevation: 3409	Farm or Lease Name: LUCKY LOBO ASX FEDERAL
Csg. Size: 4.500 / Wt.: 11.600 / d: 4.000 / Set At: 8950		Perforations: From 8630 To 8728		Well No.: 1
Tbg. Size: 2.375 / Wt.: 4.700 / d: 1.990 / Set At: 8568		Perforations: From 8630 To 8728		Unit: E / Sec.: 33 / Twp.: 16S / Rge.: 27E
Type Well: Single		Packer Set At: 8574		County: Eddy
Producing Thru: Tubing	Resv. Temp. °F: 146 @ 8700	Mean Temp. °F: 62	Baro. Press. - Pa: 13.2	State: New Mexico

L	H	Gg	%CO_2	%N_2	%H_2S	Prover	Meter Run	Taps
8950	8950	0.628	0.447	0.330	0.000	0.000	2.000	Flange

	FLOW DATA						TUBING DATA		CASING DATA		
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	Duration of Flow
SI.	0.000	x	0.000	0	0.0	0	2675	0			0
1.	2.067	x	1.250	1320	45.0	60	1875	60			24
2.	2.067	x	1.250	1320	57.0	60	1690	60			24
3.	2.067	x	1.250	1320	70.0	60	1505	60			24
4.	2.067	x	1.250	1320	81.0	60	1320	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.	8.120	244.9	1333.2	1.0000	1.262	1.129	2833
2.	8.120	275.7	1333.2	1.0000	1.262	1.129	3188
3.	8.120	305.5	1333.2	1.0000	1.262	1.129	3533
4.	8.120	328.6	1333.2	1.0000	1.262	1.129	3801
5.							

NO.	Pr	Temp °R	Tr	Z
1.	1.98	520	1.43	0.785
2.	1.98	520	1.43	0.785
3.	1.98	520	1.43	0.785
4.	1.98	520	1.43	0.785
5.				

Gas Liquid Hydrocarbon Ratio	0 Mcf/bbl.	
A.P.I. Gravity of Liquid Hydrocarbons	0.000 Deg.	
Specific Gravity Separator Gas	0.628	xxxxxxxxxx
Specific Gravity Flowing Fluid	xxxxxxxxxx	0.628
Critical Pressure	672 P.S.I.A.	672 P.S.I.A.
Critical Temperature	364 °R	364 °R

Pc 2688.2 Pc^2 7226.4

NO.	Pt^2	Pw	Pw^2	$Pc^2 - Pw^2$
1.	3565.3	1938.8	3759.0	3467.4
2.	2900.9	1774.3	3148.3	4078.1
3.	2304.9	1616.4	2612.7	4613.7
4.	1777.4	1462.8	2139.8	5086.6
5.				

(1) $\frac{Pc^2}{Pc^2 - Pw^2}$ = 1.566 (2) $\left[\frac{Pc^2}{Pc^2 - Pw^2}\right]^n$ = 1.411

AOF = Q $\left[\frac{Pc^2}{Pc^2 - Pw^2}\right]^n$ = 4987

Absolute Open Flow	4987 Mcfd @ 15.025	Angle of Slope θ	38	Slope, n	0.768

Remarks:

RECEIVED MAY 2000 OCD - ARTESIA

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Tony Vasquez	Katie Brunson	Pinson McWhorter

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

DATE 8/5/1999

COMPANY Yates Petroleum Corp LEASE LUCKY LOBO ASX FEDERAL WELL NO. 1

LOCATION: Unit E Section 33 Township 16S Range 27E

L 8950 H 8950 L / H 1.000 G 0.628 %CO_2 0.447 %N_2 0.330 %H_2S 0.000

d 1.990 Fr 0.017894 GH 5620.6 Pcr 672.4 Tcr 363.6

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	2.833	3.188	3.533	3.801	
2 Tw(W.H.°R)	520	520	520	520	
3 Ts(B.H.°R)	606	606	606	606	
4 T = (Tw+Ts) / 2	562.7	562.7	562.7	562.7	
5 Z (Est.)	0.797	0.802	0.811	0.823	
6 TZ	448.3	451.4	456.4	463.0	
7 GH / TZ	12.538	12.450	12.315	12.138	
8 e^s(Table XIV)	1.600	1.595	1.587	1.577	
9 1-e^-s(Table XIV)	0.375	0.373	0.370	0.366	
10 Pt	1888.2	1703.2	1518.2	1333.2	
11 Pt^2 / 1000	3565.3	2900.9	2304.9	1777.4	
12 Fr (Table XV)	0.017894	0.017894	0.017894	0.017894	
13 Fc = FrTZ	8.022	8.078	8.167	8.285	
14 FcQm	22.72	25.76	28.85	31.49	
15 L / $H(FcQm)^2$	516.4	663.3	832.6	991.7	
16 Fw = L / $H(FcQm)^2(1-e^{-s})$	193.68	247.39	307.81	362.42	
17 $Pw^2 = Pt^2+Fw$	3759.0	3148.3	2612.7	2139.8	
18 $Ps^2 = e^sPw^2$	6015.6	5022.1	4147.0	3374.1	
19 Ps	2452.7	2241.0	2036.4	1836.9	
20 P = (Pt+Ps) / 2	2170.4	1972.1	1777.3	1585.0	
21 Pr = (P / Pcr)	3.23	2.93	2.64	2.36	
22 Tr = (T / Tcr)	1.55	1.55	1.55	1.55	
23 Z (Table XI)	0.797	0.802	0.811	0.823	

Company Yates Petroleum Corp
Well LUCKY LOBO ASX FEDERAL #1
Location E 33-16S-27E

County Eddy
Date 8-5-1999