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

Form C-122

Type Test			Test Date	
[X] Initial	[ ] Annual	[ ] Special	7/2/04	30-025-36639

Company	Connection	
Yates Petroleum Corporation	8/25/04	

Pool	Formation	Unit
Wildcat Atoka	Atoka	

Completion Date	Total Depth	Plug Back TD	Elevation	Farm or Lease Name
7/1/04	12515	12413	4184	Lacy J State Unit

Csg. Size	Wt.	d	Set At	Perforations:	Well No.
7.000	26.000	6.276	12515	From 11808 To 11833	1

Tbg. Size	Wt.	d	Set At	Perforations:	Unit	Sec.	Twp.	Rge.
2.875	6.500	2.441	11725	From 11808 To 11833	I	8	12S	34E

Type Well	Packer Set At	County
Single	11725	Lea

Producing Thru	Resv. Temp. °F	Mean Temp. °F	Baro. Press. - Pa	State
Tubing	173 @ 11650	62	13.2	NM

L	H	Gg	%CO_2	%N_2	%H_2S	Prover	Meter Run	Taps
11725	11725	0.708	0.623	1.760	0.000	0.000	4.000	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	2550	0			0
1.	4.026	x	1.875	1200	29.0	60	1680	60			24
2.	4.026	x	1.875	1200	35.0	60	1520	60			24
3.	4.026	x	1.875	1200	41.0	60	1360	60			24
4.	4.026	x	1.875	1200	47.0	60	1200	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.	17.260	187.6	1213.2	1.0000	1.188	1.157	4452
2.	17.260	206.1	1213.2	1.0000	1.188	1.157	4891
3.	17.260	223.0	1213.2	1.0000	1.188	1.157	5294
4.	17.260	238.8	1213.2	1.0000	1.188	1.157	5668
5.							

NO.	Pr	Temp °R	Tr	Z
1.	1.82	520	1.35	0.747
2.	1.82	520	1.35	0.747
3.	1.82	520	1.35	0.747
4.	1.82	520	1.35	0.747
5.				

Gas Liquid Hydrocarbon Ratio	29 Mcf/bbl.	
A.P.I. Gravity of Liquid Hydrocarbons	50.000 Deg.	
Specific Gravity Separator Gas	0.708	XXXXXXXXX
Specific Gravity Flowing Fluid	XXXXXXXXX	0.811
Critical Pressure	668 P.S.I.A.	664 P.S.I.A.
Critical Temperature	386 °R	420 °R

Pc 2563.2 Pc^2 6570.0

NO.	Pt^2	Pw	Pw^2	$Pc^2 - Pw^2$
1.	2866.9	1751.9	3069.1	3500.9
2.	2350.7	1611.0	2595.4	3974.6
3.	1885.7	1475.4	2176.9	4393.1
4.	1471.9	1347.2	1815.1	4754.9
5.				

(1) $\frac{Pc^2}{Pc^2 - Pw^2}$ = 1.653

(2) $\left[\frac{Pc^2}{Pc^2 - Pw^2}\right]^n$ = 1.1214467

AOF = Q $\left[\frac{Pc^2}{Pc^2 - Pw^2}\right]^n$ = 7173

RECEIVED
Hobbs
OCD

Absolute Open Flow	Angle of Slope θ	Slope, n
7173 Mcfd @ 15.025	37	0.762

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
Paul F Kautz	Mike Barrett	Misty Carter	George Freeman

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

DATE 7/2/04

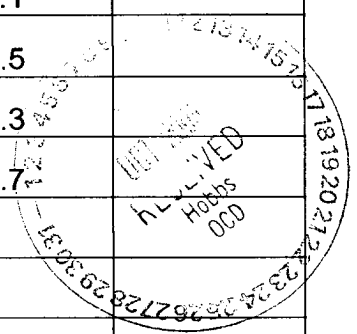
COMPANY Yates Petroleum Corporation LEASE Lacy J State Unit WELL NO. 1

LOCATION: Unit I Section 8 Township 12S Range 34E

L 11725 H 11725 L / H 1.000 G 0.811 %CO_2 0.623 %N_2 1.760 %H_2S 0.000

d 2.441 Fr 0.010495 GH 9513.7 Pcr 664.4 Tcr 419.8

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	4.452	4.891	5.294	5.668	
2 Tw(W.H.°R)	520	520	520	520	
3 Ts(B.H.°R)	633	633	633	633	
4 T = (Tw+Ts) / 2	576.2	576.2	576.2	576.2	
5 Z (Est.)	0.685	0.686	0.694	0.708	
6 TZ	394.4	395.3	399.7	407.9	
7 GH / TZ	24.119	24.069	23.801	23.325	
8 e^s(Table XIV)	2.471	2.466	2.441	2.398	
9 1-e^-s(Table XIV)	0.595	0.594	0.590	0.583	
10 Pt	1693.2	1533.2	1373.2	1213.2	
11 Pt^2 / 1000	2866.9	2350.7	1885.7	1471.9	
12 Fr (Table XV)	0.010495	0.010495	0.010495	0.010495	
13 Fc = FrTZ	4.140	4.148	4.195	4.280	
14 FcQm	18.43	20.29	22.21	24.26	
15 L / H$(FcQm)^2$	339.7	411.7	493.1	588.6	
16 Fw = L / H$(FcQm)^2(1-e^{-s})$	202.19	244.74	291.17	343.20	
17 $Pw^2 = Pt^2+Fw$	3069.1	2595.4	2176.9	1815.1	
18 $Ps^2 = e^sPw^2$	7582.5	6400.1	5314.1	4352.5	
19 Ps	2753.6	2529.8	2305.2	2086.3	
20 P = (Pt+Ps) / 2	2223.4	2031.5	1839.2	1649.7	
21 Pr = (P / Pcr)	3.35	3.06	2.77	2.48	
22 Tr = (T / Tcr)	1.37	1.37	1.37	1.37	
23 Z (Table XI)	0.685	0.686	0.694	0.708	



Company: Yates Petroleum Corporation
Well: Lacy J State Unit #1
Location: I 8-12S-34E

County: Lee
Date: 7-2-04