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

O. C. D.
ARTESIA, FORM C-122

Type Test [x] Initial [] Annual [] Special					Test Date 1/01/88	
Company Yates Petroleum Corporation			Connection Transwestern Pipeline Company			
Pool Abo			Unit Pecos Slope			
Completion Date 3/17/83		Total Depth 4300.0'		Plug Back TD 4208.0'		
Elevation 3776.4'		Farm or Lease Name Teckla MD Federal				
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 4300.0'	Perforations: From 3740.0' To 3885.0'		
Well No. 6						
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set At 3696.0'	Perforations: From 0.0' To 0.0'		
Unit Sec Twp Rge J 13 6S 25E						
Type Well Single				Packer Set At 3696.0'		
Producing Thru Tubing 100 @ 3695'				County Chaves		
Resv. Temp. °F Mean Temp. °F 62.0				Baro. Press. - Pa 13.2 psia.		
State New Mexico						
L 3696.0'	H 3696.0'	Gg .642	%CO2 .02	%N2 5.20	%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	53	585	0	0	0	0 hrs.
1.	2.067 X 1.250	110	17.7	45	389	62	0	0	24 hrs.
2.	2.067 X 1.250	115	24.3	49	275	62	0	0	24 hrs.
3.	2.067 X 1.250	130	30.8	53	202	62	0	0	24 hrs.
4.	2.067 X 1.250	130	35.0	48	130	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)	$\sqrt{hwP_m}$	Pressure Pm	Flow Temp Factor Ft.	Gravity Factor Fg	Super Compress. Fact. Fpv	Rate of Flow Q, Mcfd
1.	8.134	46.70	123.20	1.015	1.248	1.010	486
2.	8.134	55.81	128.20	1.011	1.248	1.010	579
3.	8.134	66.41	143.20	1.007	1.248	1.011	687
4.	8.134	70.80	143.20	1.012	1.248	1.012	736
5.	0.000	0.00	0.00	0.000	0.000	0.000	0

NO	Pr	Temp. °R	Tr	Z	Gas Liquid Hydrocarbon Ratio	Dry	Mcfd/bbl.
1.	.19	505	1.42	.980	A.P.I. Gravity of Liquid Hydrocarbons	0.000 Deg.	
2.	.19	509	1.43	.980	Specific Gravity Separator Gas	.642	xxxxxxxxxxxxxx
3.	.22	513	1.44	.978	Specific Gravity Flowing Fluid	xxxxxx	.642
4.	.22	508	1.43	.977	Critical Pressure	661.9 PSIA	661.9 PSIA
5.	0.00	0	0.00	0.000	Critical Temperature	355.3°R	355.3°R

Pc	598.2	Pc ²	357.8			
N0	Pt ²	Pw	Pw ²	Pc ² -Pw ²	(1) $\frac{Pc^2}{Pc^2-Pw^2} = \frac{1.0784}{}$	(2) $\left[\frac{Pc^2}{Pc^2-Pw^2} \right]^n = \frac{1.0596}{}$
1.	161.8	406.0	164.9	193.0		
2.	83.1	295.9	87.5	270.3		
3.	46.3	229.6	52.7	305.1	ROF = 0 $\left[\frac{Pc^2}{Pc^2-Pw^2} \right]^n = \frac{780 \text{ Mcfd}}{}$	
4.	20.5	167.1	27.9	329.9		
5.	0.0	0.0	0.0	0.0		

$$AOF = Q \left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 780 \text{ Mcfd}$$

Absolute Open Flow 780 Mcfd @ 15.025 Angle of Slope, 0 37 Slope, n .767

Remarks:

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

Adopted 9-1-65

DATE 4/05/91

COMPANY Yates Petroleum Corporation LEASE Teckla MD Federal WELL NO. 6

LOCATION: Unit J Section 13 Township 6S Range 25E

L 3696.0 H 3696.0 L/H 1.000 G .642 %CO₂ .02 %N₂ 5.20 %H₂S 0.00

d 1.995 Fr .017777 GH 2372.8 Pcr 661.9 Tcr 355.3

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.486	.579	.687	.736	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	560.0	560.0	560.0	560.0	0.0
4 T=(Tw+Ts)/2	541.0	541.0	541.0	541.0	0.0
5 Z(Est.)	.941	.958	.969	.977	0.000
6 TZ	509.2	518.2	524.0	528.5	0.0
7 GH/TZ	4.660	4.579	4.528	4.489	0.000
8 e ^s (Table XIV)	1.191	1.187	1.185	1.183	0.000
9 1-e ^{-s} (Table XIV)	.160	.158	.156	.155	0.000
10 Pt	402.2	288.2	215.2	143.2	0.0
11 Pt ² /1000	161.8	83.1	46.3	20.5	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	9.053	9.213	9.315	9.396	0.000
14 FcQm	4.400	5.331	6.395	6.913	0.000
15 L/H(FcQm) ²	19.361	28.422	40.899	47.796	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	3.104	4.484	6.387	7.406	0.000
17 Pw ² =Pt ² +Fw	164.9	87.5	52.7	27.9	0.0
18 Ps ² =e ^s Pw ²	196.3	103.9	62.5	33.0	0.0
19 Ps	443.1	322.4	249.9	181.7	0.0
20 P=(Pt+Ps)/2	422.7	305.3	232.6	162.5	0.0
21 Pr=(P/Pcr)	.64	.46	.35	.25	0.00
22 Tr=(T/Tcr)	1.52	1.52	1.52	1.52	0.00
23 Z(Table XI)	.941	.958	.969	.977	0.000

Company	Yates Petroleum Corporation
Well	Teckla MD Federal No. 6
Location	J, 13-6S-25E
County	Chaves
Date	4/05/91

