

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

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Form C-122
NOV 08 1984
O. C. D.
ARTESIA, OFFICE

45F
File

Type Test [x] Initial [] Annual [] Special				Test Date 9/5/84	
Company Yates Petroleum Corporation			Connection Transwestern Pipeline Company		
Pool Pecos Slope			Formation Abo		Unit
Completion Date 3/23/84		Total Depth 4150.0'		Plug Back TD 4077.0'	Elevation 3592.1'
Farm or Lease Name Federal "HY"					
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 4150.0'	Perforations: From 3718.0' To 3862.0'	
Well No. 11					
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set At 3683.0'	Perforations: From 0.0' To 0.0'	
Unit Sec Twp Rge A 33 7S 25E					
Type Well Single				Packer Set At 3683.0'	
Producing Thru Tubing		Resv. Temp. °F 96 @ 3680'		Baro. Press. - Pa 13.2 psia.	
State New Mexico					
L 3683.0'	H 3683.0'	Gg .651	%CO2 .03	%N2 6.22	%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	70	1006	0	0	0	0 hrs.
1.	2.067 X .875	277	19.1	70	908	62	0	0	24 hrs.
2.	2.067 X .875	246	43.7	70	836	62	0	0	24 hrs.
3.	2.067 X .875	216	71.5	70	740	62	0	0	24 hrs.
4.	2.067 X .875	198	137.0	70	650	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)	hwPm	Pressure Pm	Flow Temp Factor Ft.	Gravity Factor Fg	Super Compress. Fact. Fpv	Rate of Flow Q, Mcfd
1.	3.729	74.45	290.20	.991	1.239	1.022	348
2.	3.729	106.43	259.20	.991	1.239	1.020	497
3.	3.729	128.01	229.20	.991	1.239	1.017	596
4.	3.729	170.10	211.20	.991	1.239	1.016	791
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	Mcf/bbl.
1.	.44	530	1.49	.957	A.P.I. Gravity of Liquid Hydrocarbons	0.000	Deg.
2.	.39	530	1.49	.962	Specific Gravity Separator Gas	.651	xxxxxx
3.	.35	530	1.49	.967	Specific Gravity Flowing Fluid	xxxxxx	.651
4.	.32	530	1.49	.969	Critical Pressure	659.9	PSIA
5.	0.00	0	0.00	0.000	Critical Temperature	355.4	°R

Pc 1019.2 Pc2 1038.8				
NO	Pt2	Pw	Pw2	Pc2-Pw2 (1)
1.	848.6	922.0	850.1	188.7
2.	721.1	851.0	724.2	314.6
3.	567.3	756.1	571.7	467.0
4.	439.8	669.1	447.7	591.0
5.	0.0	0.0	0.0	0.0

$$AOF = Q \left[\frac{Pc2}{Pc2 - Pw2} \right]^n = 1182 \text{ Mcfd}$$

Absolute Open Flow 1182 Mcfd @ 15.025 Angle of Slope, θ 36 Slope, n .719

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

Adopted 9-1-65

DATE 10/31/84

COMPANY Yates Petroleum Corporation LEASE Federal "HY" WELL NO. 11

LOCATION: Unit A Section 33 Township 7S Range 25E

L 3683.0 H 3683.0 L/H 1.000 G .651 %CO₂ .03 %N₂ 6.22 %H₂S 0.00

d 1.995 Fr .017777 GH 2397.6 Pcr 659.9 Tcr 355.4

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Q _m	.348	.497	.596	.791	0.000
2 T _w (W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 T _s (B.H.°R)	556.0	556.0	556.0	556.0	0.0
4 T=(T _w +T _s)/2	539.0	539.0	539.0	539.0	0.0
5 Z(Est.)	.868	.877	.890	.902	0.000
6 T _Z	467.7	472.7	479.7	486.3	0.0
7 GH/T _Z	5.126	5.072	4.999	4.931	0.000
8 e ^s (Table XIV)	1.212	1.209	1.206	1.203	0.000
9 1-e ^{-s} (Table XIV)	.175	.173	.171	.169	0.000
10 P _t	921.2	849.2	753.2	663.2	0.0
11 P _t ² /1000	848.6	721.1	567.3	439.8	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 F _c =FrT _Z	8.315	8.404	8.532	8.644	0.000
14 F _c Q _m	2.897	4.175	5.086	6.837	0.000
15 L/H(F _c Q _m) ²	8.394	17.434	25.869	46.748	0.000
16 F _w =L/H(F _c Q _m) ² (1-e ^{-s})	1.468	3.020	4.419	7.892	0.000
17 P _w ² =P _t ² +F _w	850.1	724.2	571.7	447.7	0.0
18 P _s ² =e ^s P _w ²	1030.2	875.9	689.5	538.7	0.0
19 P _s	1015.0	935.9	830.4	733.9	0.0
20 P=(P _t +P _s)/2	968.1	892.5	791.8	698.6	0.0
21 P _r =(P/P _{cr})	1.47	1.35	1.20	1.06	0.00
22 T _r =(T/T _{cr})	1.52	1.52	1.52	1.52	0.00
23 Z(Table XI)	.868	.877	.890	.902	0.000

Company	Yates Petroleum Corporation
Well	Federal "HY" No. 11
Location	A, 33-7S-25E
County	Chaves
Date	10/31/84

