

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

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NOV 13 1984

Form C-122

O. C. D.
ARTESIA, OFFICE

c/sf

Type Test [x] Initial [] Annual [] Special				Test Date 9/2/84	
Company Yates Petroleum Corporation			Connection Transwestern Pipeline Company		
Pool Pecos Slope <i>ABO</i>			Formation ABO		Unit
Completion Date 6/3/83		Total Depth 4225.0'		Plug Back TD 4155.0'	Elevation 3670.4'
Farm or Lease Name Spool "SU" Com ✓					
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 4225.0'	Perforations: From 3721.0' To 3921.0'	
Well No. 5					
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set At 3667.0'	Perforations: From 0.0' To 0.0'	
Unit Sec Twp Rge C 27 7S 25E					
Type Well Single				Packer Set At 3667.0'	
Producing Thru Tubing				County Chaves	
Resv. Temp. °F 118 @ 3665'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.	
State New Mexico					
L 3667.0'	H 3667.0'	Gg .646	%CO2 .11	%N2 5.83	%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	1017	0	0	0	0 hrs.
1.	2.067 X .750	160	58.8	70	965	62	0	0	24 hrs.
2.	2.067 X .750	179	89.6	70	938	62	0	0	24 hrs.
3.	2.067 X .750	189	98.0	70	937	62	0	0	24 hrs.
4.	2.067 X .750	299	91.0	70	910	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.	2.709	100.92	173.20	.991	1.244	1.012	341
2.	2.709	131.23	192.20	.991	1.244	1.014	444
3.	2.709	140.77	202.20	.991	1.244	1.015	477
4.	2.709	168.55	312.20	.991	1.244	1.024	576
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.	.26	530	1.49	.976	A.P.I. Gravity of Liquid Hydrocarbons 0.000 Deg.		
2.	.29	530	1.49	.973	Specific Gravity Separator Gas .646 xxxxxxxxxxxxxx		
3.	.31	530	1.49	.971	Specific Gravity Flowing Fluid xxxxxx .646		
4.	.47	530	1.49	.954	Critical Pressure 661.1 PSIA 661.1 PSIA		
5.	0.00	0	0.00	0.000	Critical Temperature 354.7°R 354.7°R		

Pc 1030.2 Pc2 1061.3

NO	Pt2	Pw	Pw2	Pc2-Pw2 (1)	$\frac{Pc2}{Pc2-Pw2} = 5.2350$ (2) $\left[\frac{Pc2}{Pc2-Pw2} \right]^n = 3.5559$		
1.	956.9	978.9	958.3	103.0	$ROF = Q \left[\frac{Pc2}{Pc2-Pw2} \right]^n = 2049 \text{ Mcfd}$		
2.	904.8	952.5	907.2	154.1			
3.	902.9	951.7	905.7	155.6			
4.	852.3	925.4	856.4	204.9			
5.	0.0	0.0	0.0	0.0			

Absolute Open Flow 2049 Mcfd @ 15.025 Angle of Slope, 0 37 Slope, n .766
Remarks:

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

Adopted 9-1-65

DATE 11/6/84

COMPANY Yates Petroleum Corporation LEASE Spool "SU" Com WELL NO. 5

LOCATION: Unit C Section 27 Township 7S Range 25E

L 3667.0 H 3667.0 L/H 1.000 G .646 %CO₂ .11 %N₂ 5.83 %H₂S 0.00

d 1.995 Fr .017777 GH 2368.9 Pcr 661.1 Tcr 354.7

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.341	.444	.477	.576	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	578.0	578.0	578.0	578.0	0.0
4 T=(Tw+Ts)/2	550.0	550.0	550.0	550.0	0.0
5 Z(Est.)	.872	.875	.875	.879	0.000
6 TZ	479.8	481.4	481.5	483.2	0.0
7 GH/TZ	4.937	4.920	4.920	4.903	0.000
8 e ^s (Table XIV)	1.203	1.203	1.203	1.202	0.000
9 1-e ^{-s} (Table XIV)	.169	.168	.168	.168	0.000
10 Pt	978.2	951.2	950.2	923.2	0.0
11 Pt ² /1000	956.9	904.8	902.9	852.3	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.529	8.558	8.559	8.595	0.000
14 FcQm	2.909	3.802	4.082	4.952	0.000
15 L/H(FcQm) ²	8.462	14.455	16.664	24.527	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	1.430	2.436	2.808	4.117	0.000
17 Pw ² =Pt ² +Fw	958.3	907.2	905.7	856.4	0.0
18 Ps ² =e ^s Pw ²	1153.2	1091.0	1089.2	1029.1	0.0
19 Ps	1073.9	1044.5	1043.6	1014.5	0.0
20 P=(Pt+Ps)/2	1026.1	997.9	996.9	968.8	0.0
21 Pr=(P/Pcr)	1.55	1.51	1.51	1.47	0.00
22 Tr=(T/Tcr)	1.55	1.55	1.55	1.55	0.00
23 Z(Table XI)	.872	.875	.875	.879	0.000

Company	Yates Petroleum Corporation
Well	Spool "SU" Com No. 5
Location	C, 27-7S-25E
County	Chaves
Date	11/6/84

