

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

Form C-122

RECEIVED

157
File

SEP 18 '80

Type Test [X] Initial [] Annual [] Special				Test Date 12-29-88	
Company Yates Petroleum Corporation				Connection Transwestern Pipeline Company	
Pool Pecos Slope Abo				Unit ARTESIA, OFFICE	
Completion Date 09-05-85		Total Depth 4350.0'		Plug Back TD 4299.0'	
Elevation 3691.1'		Farm or Lease Name Buder ACN Federal			
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 4350.0'	Perforations: From 4127.0' To 4135.0'	
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set At 4090.0'	Perforations: From 0.0' To 0.0'	
Type Well Single				Packer Set At 4091.0'	
Producing Thru Tubing		Resv. Temp. °F 109 @ 4131'		Baro. Press. - Pa 13.2 psia.	
L 4090.0'		H 4090.0'		Gg .660	
%CO2 .01		%N2 6.92		%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	48	970	0	0	0	0 hrs.
1.	2.067 X 1.250	200	8.0	52	320	62	0	0	24 hrs.
2.	2.067 X 1.250	170	5.1	50	709	62	0	0	24 hrs.
3.	2.067 X 1.250	165	4.1	49	679	62	0	0	24 hrs.
4.	2.067 X 1.250	160	3.1	48	746	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.	8.134	41.30	213.20	1.008	1.231	1.018	424
2.	8.134	30.57	183.20	1.010	1.231	1.016	314
3.	8.134	27.03	178.20	1.011	1.231	1.015	278
4.	8.134	23.17	173.20	1.012	1.231	1.015	238
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.	.32	512	1.44	.964	A.P.I. Gravity of Liquid Hydrocarbons 0.000 Deg.
2.	.28	510	1.43	.969	Specific Gravity Separator Gas .660
3.	.27	509	1.43	.970	Specific Gravity Flowing Fluid .660
4.	.26	508	1.43	.970	Critical Pressure 658.4 PSIA
5.	0.00	0	0.00	0.000	Critical Temperature 356.4°R

Pc	983.2	Pc ²	966.7		
NO	Pt ²	Pw	Pw ²	Pc ² -Pw ²	(1) $\frac{Pc^2}{Pc^2-Pw^2} = \frac{1.1306}{}$ (2) $\left[\frac{Pc^2}{Pc^2-Pw^2} \right]^n = \frac{1.0951}{}$
1.	111.0	337.3	113.7	852.9	ROF = Q $\left[\frac{Pc^2}{Pc^2-Pw^2} \right]^n = \frac{465 \text{ Mcfd}}{}$
2.	521.6	723.2	523.0	443.7	
3.	479.1	693.0	480.2	486.4	
4.	576.4	759.7	577.2	389.5	
5.	0.0	0.0	0.0	0.0	

$$ROF = Q \left[\frac{Pc2}{Pc2-Pw2} \right]^n = 465 \text{ Mcfd}$$

Absolute Open Flow 465 Mcfd @ 15.025 Angle of Slope, 0 37 Slope, n .740
Remarks:

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

Adopted 9-1-65

DATE 08-16-90

COMPANY Yates Petroleum Corporation LEASE Buder ACH Federal WELL NO. 1
 LOCATION: Unit D Section 22 Township 6S Range 26E
 L 4090.0 H 4090.0 L/H 1.000 G .660 %CO₂ .01 %N₂ 6.92 %H₂S 0.00
 d 1.995 Fr .017777 GH 2699.4 Pcr 658.4 Tcr 356.4

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.424	.314	.278	.238	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	569.0	569.0	569.0	569.0	0.0
4 T=(Tw+Ts)/2	545.5	545.5	545.5	545.5	0.0
5 Z(Est.)	.952	.897	.901	.892	0.000
6 TZ	519.2	489.3	491.5	486.6	0.0
7 GH/TZ	5.199	5.517	5.492	5.547	0.000
8 e=(Table XIV)	1.215	1.230	1.229	1.231	0.000
9 1-e-s=(Table XIV)	.177	.187	.186	.188	0.000
10 Pt	333.2	722.2	692.2	759.2	0.0
11 Pt ² /1000	111.0	521.6	479.1	576.4	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	9.230	8.699	8.738	8.651	0.000
14 FcQm	3.917	2.731	2.427	2.061	0.000
15 L/H(FcQm) ²	15.343	7.456	5.891	4.249	0.000
16 Fw=L/H(FcQm) ² (1-e-s)	2.718	1.393	1.096	.798	0.000
17 Pw ² =Pt ² +Fw	113.7	523.0	480.2	577.2	0.0
18 Ps ² =e ^s Pw ²	138.2	643.2	590.1	710.6	0.0
19 Ps	371.8	802.0	768.2	843.0	0.0
20 P=(Pt+Ps)/2	352.5	762.1	730.2	801.1	0.0
21 Pr=(P/Pcr)	.54	1.16	1.11	1.22	0.0
22 Tr=(T/Tcr)	1.53	1.53	1.53	1.53	0.0
23 Z(Table XI)	.952	.897	.901	.892	0.000

Company	Yates Petroleum Corporation
Well	Buder ACN Federal No. 1
Location	D, 22-6S -26E
County	Chaves
Date	08-16-90

