

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

RECEIVED BY

NOV 13 1984 Form C-122

O. C. D.

ARTESIA, OFFICE

Type Test [x] Initial [] Annual [] Special				Test Date 8/31	
Company Yates Petroleum Corporation			Connection Transwestern Pipeline Company		
Pool Pecos Slope <i>ABO</i>			Formation Abo		Unit
Completion Date 1/9/84		Total Depth 4250.0'	Plug Back TD 4159.0'	Elevation 4047.2'	Farm or Lease Name Monaghan "QY" Fed ✓
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 4250.0'	Perforations: From 3810.0' To 4005.0'	Well No. 10
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set At 3780.0'	Perforations: From 0.0' To 0.0'	Unit Sec Twp Rge L 27 5S 24E
Type Well Single				Packer Set At 0.0'	County <i>Blanco</i>
Producing Thru Tubing L	Resv. Temp. °F 102 @ 3775'	Mean Temp. °F 62.0	Baro. Press. - Pa 13.2 psia.	State New Mexico	
H 3780.0'	Gg .650	%CO2 .01	%N2 5.74	%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	988	0	0	0	0 hrs.
1.	2.067 X 1.000	175	5.1	70	818	62	0	0	24 hrs.
2.	2.067 X 1.000	175	10.0	70	708	62	0	0	24 hrs.
3.	2.067 X 1.000	185	14.0	70	507	62	0	0	24 hrs.
4.	2.067 X 1.000	190	21.0	70	390	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)	$\frac{1}{hwPm}$	Pressure Pm	Flow Temp Factor Ft.	Gravity Factor Fg	Super Compress. Fact. Fpv	Rate of Flow Q, Mcfd
1.	4.947	30.98	188.20	.991	1.240	1.014	191
2.	4.947	43.38	188.20	.991	1.240	1.014	267
3.	4.947	52.68	198.20	.991	1.240	1.015	325
4.	4.947	65.32	203.20	.991	1.240	1.015	403
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.	.28	530	1.49	.973	A.P.I. Gravity of Liquid Hydrocarbons	0.000 Deg.
2.	.28	530	1.49	.973	Specific Gravity Separator Gas	.650 xxxxxxxxxxxxxx
3.	.30	530	1.49	.971	Specific Gravity Flowing Fluid	.650
4.	.31	530	1.49	.970	Critical Pressure	660.7 PSIA
5.	0.00	0	0.00	0.000	Critical Temperature	356.4°R

Pc 1001.2 Pc2 1002.4				
NO	Pt ²	Pw	Pw ²	Pc ² -Pw ² (1)
1.	690.9	831.5	691.4	311.0
2.	520.1	721.8	521.1	481.4
3.	270.6	521.5	272.0	730.4
4.	162.6	405.9	164.8	837.6
5.	0.0	0.0	0.0	0.0

$$\frac{Pc^2}{Pc^2 - Pw^2} = \frac{1.2001}{1.1474} \quad (2) \left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 1.1474$$

$$ROF = Q \left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 462 \text{ Mcfd}$$

Absolute Open Flow 462 Mcfd @ 15.025 Angle of Slope, θ 37 Slope, n .754
Remarks:

Approved By:	Conducted By: David Weaver	Calculated By: Andie Carpenter	Checked By:
--------------	-------------------------------	-----------------------------------	-------------

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

Adopted 9-1-65

DATE 11/6/84

COMPANY Yates Petroleum Corporation LEASE Monaghan "QY" Fed WELL NO. 10

LOCATION: Unit L Section 27 Township 5S Range 24E

L 3780.0 H 3780.0 L/H 1.000 G .650 %CO₂ .01 %N₂ 5.74 %H₂S 0.00

d 1.995 Fr .017777 GH 2457.0 Pcr 660.7 Tcr 356.4

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.191	.267	.325	.403	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	562.0	562.0	562.0	562.0	0.0
4 T=(Tw+Ts)/2	542.0	542.0	542.0	542.0	0.0
5 Z(Est.)	.881	.895	.924	.941	0.000
6 TZ	477.4	485.4	500.6	509.9	0.0
7 GH/TZ	5.147	5.062	4.908	4.819	0.000
8 e ^s (Table XIV)	1.213	1.209	1.202	1.198	0.000
9 1-e ^{-s} (Table XIV)	.175	.173	.168	.165	0.000
10 Pt	831.2	721.2	520.2	403.2	0.0
11 Pt ² /1000	690.9	520.1	270.6	162.6	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.492	8.628	8.902	9.065	0.000
14 FcQm	1.621	2.307	2.892	3.654	0.000
15 L/H(FcQm) ²	2.629	5.321	8.365	13.350	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	.461	.920	1.406	2.207	0.000
17 Pw ² =Pt ² +Fw	691.4	521.1	272.0	164.8	0.0
18 Ps ² =e ^s Pw ²	838.4	630.0	327.0	197.4	0.0
19 Ps	915.7	793.7	571.8	444.3	0.0
20 P=(Pt+Ps)/2	873.4	757.5	546.0	423.8	0.0
21 Pr=(P/Pcr)	1.32	1.15	.83	.64	0.00
22 Tr=(T/Tcr)	1.52	1.52	1.52	1.52	0.00
23 Z(Table XI)	.881	.895	.924	.941	0.000

Company	Yates Petroleum Corporation
Well	Monaghan "QY" Fed No. 10
Location	L, 27-5S-24E
County	
Date	11/6/84

