

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

RECEIVED BY
Form C-122
NOV 10 1984

O. C. D.
ARTESIA OFFICE

Type Test [x] Initial [] Annual [] Special				Test Date 9/5/84	
Company Yates Petroleum Corporation			Connection Transwestern Pipeline Company		
Pool Pecos Slope <i>FW</i>			Formation Abo		
Completion Date 11/21/83			Total Depth 4150.0'		Elevation 3596.1'
Farm or Lease Name Short "RM" Federal					
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 4135.0'	Perforations: From 3566.0' To 3866.0'	
Well No. 3					
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set At 3525.0'	Perforations: From 0.0' To 0.0'	
Unit Sec Twp Rge L 27 7S 25E					
Type Well Single				Packer Set At 3525.0'	
Producing Thru Tubing		Resv. Temp. °F 102 @ 3520'		Baro. Press. - Pa 13.2 psia.	
State New Mexico					
L 3525.0'	H 3525.0'	Gg .647	%CO2 .03	%N2 5.76	%H2S 0.00
				Prover 0.000"	Meter Run 2.000"
				Taps Flange	

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow	
NO	Prover Size	Orifice 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	1012	0	0	0	0 hrs.
1.	2.067	X 1.375	276	6.0	70	928	62	0	0	24 hrs.
2.	2.067	X 1.375	249	11.9	70	875	62	0	0	24 hrs.
3.	2.067	X 1.375	211	18.2	70	855	62	0	0	24 hrs.
4.	2.067	X 1.375	194	26.0	70	820	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.	10.204	41.66	289.20	.991	1.243	1.022	535
2.	10.204	55.86	262.20	.991	1.243	1.020	716
3.	10.204	63.88	224.20	.991	1.243	1.017	816
4.	10.204	73.40	207.20	.991	1.243	1.015	936
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.	.40	530	1.49	.961	Specific Gravity Separator Gas	.647
3.	.34	530	1.49	.967	Specific Gravity Flowing Fluid	xxxxxx
4.	.31	530	1.49	.970	Critical Pressure	660.8 PSIA
5.	0.00	0	0.00	0.000	Critical Temperature	355.3°R

Pc 1025.2 Pc2 1051.0

NO	Pt2	Pw	Pw2	Pc2-Pw2 (1)	$\frac{Pc2}{Pc2-Pw2} = 3.0237$	(2) $\left[\frac{Pc2}{Pc2-Pw2} \right]^n = 2.2509$
1.	885.9	943.0	889.2	161.8		
2.	788.9	891.6	794.9	256.1		
3.	753.8	872.7	761.6	289.4		
4.	694.2	839.4	704.6	346.4		
5.	0.0	0.0	0.0	0.0		

AOF = $Q \left[\frac{Pc2}{Pc2-Pw2} \right]^n = 2108 \text{ Mcfd}$

Absolute Open Flow 2108 Mcfd @ 15.025 Angle of Slope, θ 36 Slope, n .733

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 Short "RM" Federal WELL NO. 3

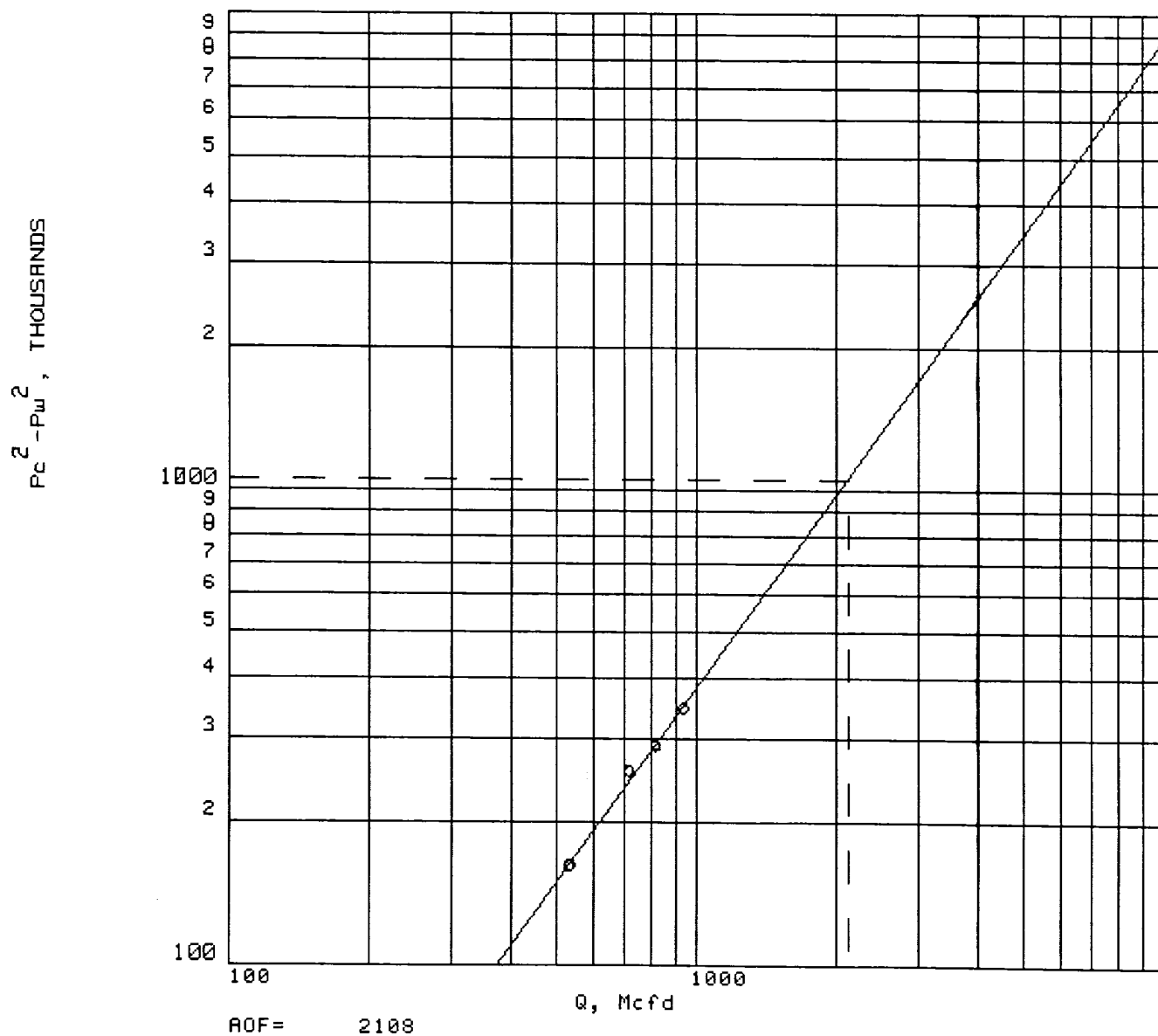
LOCATION: Unit L Section 27 Township 7S Range 25E

L 3525.0 H 3525.0 L/H 1.000 G .647 %CO₂ .03 %N₂ 5.76 %H₂S 0.00

d 1.995 Fr .017777 GH 2280.7 Pcr 660.8 Tcr 355.3

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.535	.716	.816	.936	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.)	.869	.875	.877	.882	0.000
6 TZ	470.7	474.3	475.6	478.0	0.0
7 GH/TZ	4.845	4.809	4.795	4.772	0.000
8 e ^s (Table XIV)	1.199	1.198	1.197	1.196	0.000
9 1-e ^{-s} (Table XIV)	.166	.165	.165	.164	0.000
10 Pt	941.2	888.2	868.2	833.2	0.0
11 Pt ² /1000	885.9	788.9	753.8	694.2	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.375	8.431	8.455	8.502	0.000
14 FcQm	4.481	6.035	6.900	7.961	0.000
15 L/H(FcQm) ²	20.077	36.426	47.607	63.380	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	3.333	6.011	7.835	10.378	0.000
17 Pw ² =Pt ² +Fw	889.2	794.9	761.6	704.6	0.0
18 Ps ² =e ^s Pw ²	1066.2	952.0	911.7	842.6	0.0
19 Ps	1032.6	975.7	954.8	917.9	0.0
20 P=(Pt+Ps)/2	986.9	932.0	911.5	875.6	0.0
21 Pr=(P/Pcr)	1.49	1.41	1.38	1.32	0.00
22 Tr=(T/Tcr)	1.53	1.53	1.53	1.53	0.00
23 Z(Table XI)	.869	.875	.877	.882	0.000

Company	Yates Petroleum Corporation
Well	Short "RM" Federal No. 3
Location	L, 27-7S-25E
County	Chaves
Date	11/6/84



NEW MEXICO OIL CONSERVATION DIVISION

P. O. DRAWER "DD"

ARTESIA, NEW MEXICO 88210

RECEIVED BY

SEP 07 1984

O. C. D.
ARTESIA, OFFICE

NOTICE OF GAS CONNECTION

DATE September 5, 1984

This is to notify the Oil Conservation Division that connection for the
purchase of gas from the Yates Petroleum Corporation
Operator

Short "RM" Feed
Lease

#3
Well Unit

27-7S-25E Chaves County
S.T.R.

Pecos Slope (Abo)
Pool

Transwestern
Name of Purchaser

was made on September 4, 1984

Transwestern Pipeline Company
Company

Rodney C. Burke Rodney C. Burke
Representative

Jr. Analyst, Contract Administration
Title

cc: Operator

New Mexico Oil Conservation Commission
Oil & Gas Conservation Division
P. O. Box 2088
Santa Fe, NM 87501