

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

45F.
File
Form O-122

RECEIVED

FEB 3 1983

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 11/14/82		FEB 3 1983	
Company Vares Petroleum Corporation				Connection Transwestern Pipeline Company		O. C. D. ARTESIA, OFFICE	
Pool Pecos Slope - Abo Pool				Formation Abo		Unit	
Completion Date 54/6/82		Total Depth 4285.0'		Plug Back TD 4141.0'		Elevation 3762.8'	
Farm or Lease Name George "OJ" Federal				Well No. 7			
Csg Size 4.500"	Wt. 3.500#	d 4.090"	Set Rt 4195.0'	Perforations: From 3671.0' To 3936.0'		Unit Sec Twp Rge K 26 7S 25E	
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set Rt 3621.0'	Perforations: From 0.0' To 0.0'			
Type Well Single				Packer Set Rt 3621.0'		County Chaves	
Producing Thru Tubing		Resv. Temp. °F 97 @ 3612'		Mean Temp. °F 62.0		Bano. Press. - Pa 13.2 psia.	
State New Mexico							
L 3621.0'	H 3621.0'	Gg .641	%CO2 .10	%N2 5.02	%H2S 0.00	Proven 0.000"	Meter Run 2.000"
						Taps Flange	

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow
NO	Proven Orifice Size X Size	Press. psig	Diff. hu	Temp. °F	Press. psig	Temp. °F	Press. psig	Temp. °F	
SI	0.000 X 0.000	0	0.0	72	1008	0	0	0	0 hrs.
1.	2.067 X 1.375	270	23.6	72	921	62	0	0	24 hrs.
2.	2.067 X 1.375	270	25.6	72	916	62	0	0	24 hrs.
3.	2.067 X 1.375	280	26.0	72	905	62	0	0	24 hrs.
4.	2.067 X 1.375	280	35.7	72	885	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)	$\sqrt{h/P_m}$	Pressure Pm	Flow Temp Factor Ft.	Gravity Factor Fg	Super Compress. Fact. Fpv	Rate of Flow Q, Mcfd
1.	10.204	81.75	283.20	.989	1.249	1.021	1052
2.	10.204	85.15	283.20	.989	1.249	1.021	1096
3.	10.204	87.31	293.20	.989	1.249	1.022	1124
4.	10.204	102.31	293.20	.989	1.249	1.022	1318
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.	A.P.I. Gravity of Liquid Hydrocarbons 0.000 Deg.
1.	.43	532	1.50	.959	Specific Gravity Separator Gas .641	xxxxxxxxxxxx
2.	.43	532	1.50	.959	Specific Gravity Flowing Fluid	xxxxxx .641
3.	.44	532	1.50	.957	Critical Pressure 662.6 PSIA	662.6 PSIA
4.	.44	532	1.50	.957	Critical Temperature 355.3°R	355.3°R
5.	0.00	0	0.00	0.000		

Pc	1021.2	Pc ²	1042.8	
NO	Pt ²	Pw	Pw ²	Pc ² -Pw ² (1)
1.	872.7	941.1	885.7	157.1
2.	863.4	936.8	877.5	165.3
3.	843.1	926.3	858.0	184.9
4.	806.8	909.5	827.3	215.6
5.	0.0	0.0	0.0	0.0

$$\frac{P_c^2}{P_c^2 - P_w^2} = \frac{4.8399}{(2)} \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{3.0444}{AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4011 \text{ Mcfd}}$$

Absolute Open Flow 4011 Mcfd @ 15.025 Angle of Slope, 0 35 Slope, n .706
Remarks:

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

Adopted 9-1-65

DATE 2/1/83

COMPANY Yates Petroleum Corporation LEASE George "OJ" Federal WELL NO. 7

LOCATION: Unit K Section 26 Township 7S Range 25E

L 3621.0 H 3621.0 L/H 1.000 G .641 %CO₂ .10 %N₂ 5.02 %H₂S 0.00

d 1.995 Fr .017777 GH 2321.1 Pcr 662.6 Tcr 355.3

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	1.052	1.096	1.124	1.318	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	557.0	557.0	557.0	557.0	0.0
4 T=(Tw+Ts)/2	539.5	539.5	539.5	539.5	0.0
5 Z(Est.)	.867	.868	.869	.871	0.000
6 TZ	467.7	468.0	468.8	470.0	0.0
7 GH/TZ	4.963	4.959	4.952	4.938	0.000
8 e ^s (Table XIV)	1.205	1.204	1.204	1.203	0.000
9 1-e ^s (Table XIV)	.170	.170	.169	.169	0.000
10 Pt	934.2	929.2	918.2	898.2	0.0
11 Pt ² /1000	872.7	863.4	843.1	806.8	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.314	8.326	8.333	8.355	0.000
14 FcQm	8.747	9.123	9.370	11.009	0.000
15 L/H(FcQm) ²	76.511	83.236	87.802	121.208	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	12.992	14.116	14.879	20.490	0.000
17 Pw ² =Pt ² +Fw	885.7	877.5	858.0	827.3	0.0
18 Ps ² =e ^s Pw ²	1066.9	1056.7	1033.0	995.6	0.0
19 Ps	1032.9	1028.0	1016.4	997.8	0.0
20 P=(Pt+Ps)/2	983.6	978.6	967.3	948.0	0.0
21 Pr=(P/Pcr)	1.48	1.48	1.46	1.43	0.00
22 Tr=(T/Tcr)	1.52	1.52	1.52	1.52	0.00
23 Z(Table XI)	.867	.868	.869	.871	0.000

Company	Yates Petroleum Corporation
Well	George "OJ" Federal No. 7
Location	K, 26-78-25E
County	Chaves
Date	2/1/83

