

NEW MEXICO OIL CONSERVATION COMMISSION
MULTI-JOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form O-122

*clsf
File*

Type Test [X] Initial [] Annual [] Special		Test Date 3/7/88	
Company Yates Petroleum Corporation		Connection Transwestern Pipeline Company	
Pool Pecos Slope A00		Formation Abo	
Completion Date 6/7/83		Unit	
Total Depth 4300.0'		Plug Back TD 4250.0'	
Elevation 3728.0'		Farm or Lease Name Sacra SA	
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 4300.0'
Perforations: From 3773.0' To 3936.0'		Well No. 10	
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set At 3724.0'
Perforations: From 0.0' To 0.0'		Unit Sec Twp Rge D 19 6S 26E	
Type Well Single		Packer Set At 3725.0'	
Producing Thru Tubing		Baro. Press. - Pa 13.2 psia.	
County Chaves		State New Mexico	
L 3724.0'	H 3724.0'	Gg .644	%CO2 .01
%N2 5.09	%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	43	721	0	0	0	0 hrs.
1.	2.067 X .625	155	50.2	43	442	62	0	0	24 hrs.
2.	2.067 X .625	155	59.1	43	431	62	0	0	24 hrs.
3.	2.070 X .625	150	67.5	43	367	62	0	0	24 hrs.
4.	2.067 X .625	150	78.0	43	310	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)	1/hwPm	Pressure Pm	Flow Temp Factor Ft.	Gravity Factor Fg	Super Compress. Fact. Fpv	Rate of Flow Q, Mcfd
1.	1.866	91.89	168.20	1.017	1.246	1.015	221
2.	1.866	99.70	168.20	1.017	1.246	1.015	239
3.	1.866	104.96	163.20	1.017	1.246	1.015	252
4.	1.866	112.83	163.20	1.017	1.246	1.015	271
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.	.25	503	1.41	.970	A.P.I. Gravity of Liquid Hydrocarbons	0.000 Deg.
2.	.25	503	1.41	.970	Specific Gravity Separator Gas	.644
3.	.25	503	1.41	.971	Specific Gravity Flowing Fluid	.644
4.	.25	503	1.41	.971	Critical Pressure	662.0 PSIA
5.	0.00	0	0.00	0.000	Critical Temperature	356.3°R

Pc	734.2	Pc2	539.0
NO	Pt2	Pw	Pw2
1.	207.2	455.9	207.8
2.	197.3	445.1	198.1
3.	144.6	381.3	145.4
4.	104.5	324.7	105.4
5.	0.0	0.0	0.0

$AOF = Q \left[\frac{Pc2}{Pc2 - Pw2} \right]^n = 320 \text{ Mcfd}$		$\frac{Pc2}{Pc2 - Pw2} = \frac{1.2440}{(2)} \left[\frac{Pc2}{Pc2 - Pw2} \right]^n = 1.1807$
---	--	--

Absolute Open Flow	320 Mcfd @ 15.025	Angle of Slope, 0	37	Slope, n .761
--------------------	-------------------	-------------------	----	---------------

Remarks:

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

Adopted 9-1-65

DATE 4/26/88

COMPANY Yates Petroleum Corporation LEASE Sacra SA WELL NO. 10

LOCATION: Unit D Section 19 Township 6S Range 26E

L 3724.0 H 3724.0 L/H 1.000 G .644 %CO₂ .01 %N₂ 5.09 %H₂S 0.00

d 1.995 Fr .017777 GH 2398.3 Pcr 662.0 Tcr 356.3

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.221	.239	.252	.271	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	564.0	564.0	564.0	564.0	0.0
4 T=(Tw+Ts)/2	543.0	543.0	543.0	543.0	0.0
5 Z(Est.)	.934	.936	.945	.953	0.000
6 TZ	507.1	508.0	513.1	517.6	0.0
7 GH/TZ	4.729	4.721	4.674	4.633	0.000
8 e ^s (Table XIV)	1.194	1.194	1.192	1.190	0.000
9 1-e ^{-s} (Table XIV)	.162	.162	.161	.159	0.000
10 Pt	455.2	444.2	380.2	323.2	0.0
11 Pt ² /1000	207.2	197.3	144.6	104.5	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	9.017	9.032	9.122	9.203	0.000
14 FcQm	1.989	2.161	2.297	2.491	0.000
15 L/H(FcQm) ²	3.955	4.671	5.274	6.204	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	.643	.758	.848	.989	0.000
17 Pw ² =Pt ² +Fw	207.8	198.1	145.4	105.4	0.0
18 Ps ² =e ^s Pw ²	248.2	236.4	173.3	125.5	0.0
19 Ps	498.2	486.2	416.2	354.2	0.0
20 P=(Pt+Ps)/2	476.7	465.2	398.2	338.7	0.0
21 Pr=(P/Pcr)	.72	.70	.60	.51	0.00
22 Tr=(T/Tcr)	1.52	1.52	1.52	1.52	0.00
23 Z(Table XI)	.934	.936	.945	.953	0.000

Company	Yates Petrole	Corporation
Well	Sacra SA No. 10	
Location	D, 19-6S-26E	
County	Chaves	
Date	4/26/88	

$P_c^2 - P_w^2$, THOUSANDS

