

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

RECEIVED

Form C-122

JAN 11 '91

clsf
File

Type Test [x] Initial [] Annual [] Special		Test Date 09/16/89		O. C. D. ARTESIA, OFFICE	
Company Yates Petroleum Corporation		Connection Transwestern Pipeline Company			
Pool Abo		Formation Pecos Slope		Unit	
Completion Date 07/19/89		Total Depth 5050.0'		Plug Back TD 5000.0'	
Elevation 3840.2'		Farm or Lease Name Filaree AEL Federal		Well No. 2	
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 5050.0'	Perforations: From 4893.0' To 4904.0'	
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set At 4857.0'	Perforations: From 0.0' To 0.0'	
Type Well Single		Packer Set At 4857.0'		County Chaves	
Producing Thru Tubing		Resv. Temp. °F 105 @ 4753'		Mean Temp. °F 62.0	
Baro. Press. - Pa 13.2 psia.		State New Mexico		Meter Run 2.000"	
L 4857.0'	H 4857.0'	Gg .650	%CO2 .04	%N2 4.68	%H2S 0.00
Prover 0.000"		Meter Run 2.000"		Taps Flange	
FLOW DATA			TUBING DATA		CASING DATA
NO	Prover Orifice Size X Size	Press. psig	Diff. hw	Temp. °F	Press. psig
SI	0.000 X 0.000	0	0.0	75	800
1.	2.067 X .875	170	19.0	78	725
2.	2.067 X .875	170	24.6	82	712
3.	2.067 X .875	180	42.1	73	689
4.	2.067 X .875	180	64.7	75	611
5.	0.000 X 0.000	0	0.0	0	0
RATE OF FLOW CALCULATIONS					
NO	Coefficient (24 HOUR)	Pressure Pm	Flow Temp Factor Ft.	Gravity Factor Fg	Super Compress. Fact. Fpv
1.	3.729	59.00	.983	1.240	1.013
2.	3.729	67.13	.979	1.240	1.014
3.	3.729	90.19	.988	1.240	1.014
4.	3.729	111.80	.986	1.240	1.014
5.	0.000	0.00	0.000	0.000	0.000
Rate of Flow Q, Mcfd					
1.					272
2.					308
3.					418
4.					517
5.					0
NO	Pr	Temp. °R	Tr	Z	Gas Liquid Hydrocarbon Ratio Dry Mcf/bbl.
1.	.28	538	1.50	.974	A.P.I. Gravity of Liquid Hydrocarbons 0.000 Deg.
2.	.28	542	1.51	.973	Specific Gravity Separator Gas .650
3.	.29	533	1.48	.972	Specific Gravity Flowing Fluid .650
4.	.29	535	1.49	.972	Critical Pressure 662.6 PSIA
5.	0.00	0	0.00	0.000	Critical Temperature 359.3°R
Pc 813.2 Pc2 661.3					
NO	Pt2	Pw	Pw2	Pc2-Pw2 (1)	Pc2 / (Pc2-Pw2) = 2.4779 (2) [Pc2 / (Pc2-Pw2)]^n = 1.9910
1.	544.9	739.0	546.1	115.2	
2.	525.9	726.3	527.4	133.8	
3.	493.1	704.2	495.9	165.4	
4.	389.6	627.7	394.0	267.3	
5.	0.0	0.0	0.0	0.0	
ROF = Q [Pc2 / (Pc2-Pw2)]^n = 1030 Mcfd					
Absolute Open Flow 1030 Mcfd @ 15.025 Angle of Slope, 0 37 Slope, n .759					
Remarks:					
Approved By:					
Conducted By: David Weaver		Calculated By: PB Sanchez		Checked By:	

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

Adopted 9-1-65

DATE 01/03/91

COMPANY Yates Petroleum Corporation LEASE Filaree AEL Federal WELL NO. 2

LOCATION: Unit K Section 33 Township 8S Range 26E

L 4857.0 H 4857.0 L/H 1.000 G .650 %CO2 .04 %N2 4.68 %H2S 0.00

d 1.995 Fr .017777 GH 3157.1 Pcr 662.6 Tcr 359.3

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.272	.308	.418	.517	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	565.0	565.0	565.0	565.0	0.0
4 T=(Tw+Ts)/2	543.5	543.5	543.5	543.5	0.0
5 Z(Est.)	.890	.892	.895	.906	0.000
6 TZ	483.6	484.6	486.3	492.4	0.0
7 GH/TZ	6.528	6.515	6.491	6.412	0.000
8 e ^s (Table XIV)	1.277	1.276	1.275	1.272	0.000
9 1-e ^{-s} (Table XIV)	.217	.217	.216	.214	0.000
10 Pt	738.2	725.2	702.2	624.2	0.0
11 Pt ² /1000	544.9	525.9	493.1	389.6	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.597	8.622	8.652	8.758	0.000
14 FcQm	2.337	2.658	3.616	4.529	0.000
15 L/H(FcQm) ²	5.460	7.066	13.078	20.507	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	1.186	1.530	2.824	4.381	0.000
17 Pw ² =Pt ² +Fw	546.1	527.4	495.9	394.0	0.0
18 Ps ² =e ^s Pw ²	697.6	673.3	632.5	501.0	0.0
19 Ps	835.2	820.5	795.3	707.8	0.0
20 P=(Pt+Ps)/2	786.7	772.9	748.7	666.0	0.0
21 Pr=(P/Pcr)	1.19	1.17	1.13	1.01	0.00
22 Tr=(T/Tcr)	1.51	1.51	1.51	1.51	0.00
23 Z(Table XI)	.890	.892	.895	.906	0.000

Company	Yates Petroleum Corporation
Well	Filaree REL Federal No. 2
Location	K, 33-8S-26E
County	Chaves
Date	01/03/91

