

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

Form C-122

ask file

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 04/10/1992			
Company Yates Petroleum Corp				Connection Transwestern Pipeline Co				JAN 06 '95	
Pool Abo				Formation Pecos Slope				Unit ARTESIA, TEXAS	
Completion Date 03/27/1990		Total Depth 4250		Plug Back TD 4190		Elevation 3607		Farm or Lease Name Hancock AHC	
Csg. Size 4.500	Wt. 9.500	d 4.090	Set At 4250	Perforations From 3725 To 4002		Well No. 1			
Tbg. Size 2.375	Wt. 4.700	d 1.995	Set At 3669	Perforations From 3725 To 4002		Unit C	Sec. 21	Twp 6S	Rge. 26E
Type Well Single				Packer Set At 3669		County Chaves			
Producing Thru Tubing		Resv. Temp. °F 102 @ 4150		Mean Temp. °F 62		Baro. Press. - Pa 13.2		State New Mexico	
L 3669	H 3669	Gg 0.651	%CO ₂ 0.014	%N ₂ 6.459	%H ₂ S 0.000	Prover 0.000	Meter Run 2.000	Taps Flange	

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
Sl.	0.000	x	0.000	0	0.0	0	580	0			0
1.	2.067	x	0.500	100	2.0	59	500	62			24
2.	2.067	x	0.500	92	7.4	63	367	62			24
3.	2.067	x	0.500	100	13.0	56	233	62			24
4.	2.067	x	0.500	100	16.0	55	100	62			24
5.		x									

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{hwP_m}$	Pressure Pm	Flow Temp. Factor Ft	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1.	1.189	15.0	113.2	1.0010	1.240	1.010	22
2.	1.189	27.9	105.4	0.9971	1.240	1.009	41
3.	1.189	38.4	113.2	1.0039	1.240	1.010	57
4.	1.189	42.6	113.2	1.0048	1.240	1.010	64
5.							

NO.	Pr	Temp °R	Tr	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	0.17	519	1.46	0.981	0	
2.	0.16	523	1.47	0.983	0.000	Deg
3.	0.17	516	1.45	0.981	0.651	xxxxxxxxxx
4.	0.17	515	1.45	0.980	0.651	xxxxxxxxxx
5.						

NO.	Pc	Pw	Pwf	Pc ² - Pw ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} =$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$
1.	263.4	513.2	263.4	88.5	1.208	1.159
2.	144.6	380.2	144.6	207.3		
3.	60.6	246.3	60.7	291.2		
4.	12.8	113.4	12.9	339.0		
5.						

Absolute Open Flow 66 Mcfd @ 15.025				Angle of Slope 0 38	Slope, n 0.782
Remarks:					

Approved By Commission:	Conducted By: Bill Hansen	Calculated By: Andrea Carpenter	Checked By:
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WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (Pw) C-122D

DATE 04/10/1992

COMPANY Yates Petroleum Corp LEASE Hancock AHC WELL NO. 1

LOCATION: Unit C Section 21 Township 6S Range 26E

L 3669 H 3669 L/H 1.000 G 0.651 %CO₂ 0.014 %N₂ 6.459 %H₂S 0.000
 d 1.995 Fr 0.017777 GH 2387.4 Pcr 659.5 Tcr 354.6

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	0.022	0.041	0.057	0.064	
2 Tw(W.H.°R)	522	522	522	522	
3 Ts(B.H.°R)	562	562	562	562	
4 T = (Tw+Ts) / 2	541.7	541.7	541.7	541.7	
5 Z (Est.)	0.924	0.943	0.963	0.983	
6 TZ	500.7	511.0	521.6	532.4	
7 GH / TZ	4.768	4.672	4.577	4.484	
8 e ^{As} (Table XIV)	1.196	1.191	1.187	1.183	
9 1-e ^{As} (Table XIV)	0.164	0.161	0.158	0.155	
10 Pt	513.2	380.2	246.2	113.2	
11 Pt ² / 1000	263.4	144.6	60.6	12.8	
12 Fr (Table XV)	0.017777	0.017777	0.017777	0.017777	
13 Fc = FrTZ	8.901	9.084	9.273	9.464	
14 FcQm	0.20	0.38	0.53	0.60	
15 L / H(FcQm) ²	0.0	0.1	0.3	0.4	
16 Fw = L / H(FcQm) ² (1-e ^{As})	0.01	0.02	0.04	0.06	
17 Pw ² = Pt ² +Fw	263.4	144.6	60.7	12.9	
18 Ps ² = e ^{As} Pw ²	314.9	172.3	72.0	15.2	
19 Ps	561.2	415.0	268.4	123.4	
20 P = (Pt+Ps) / 2	537.2	397.6	257.3	118.3	
21 Pr = (P / Pcr)	0.81	0.60	0.39	0.18	
22 Tr = (T / Tcr)	1.53	1.53	1.53	1.53	
23 Z (Table XI)	0.924	0.943	0.963	0.983	

Company
Well
Location
10^3

Yates Petroleum Corp
Hancock AHC #1
C 21-6S-26E

County
Date
Chaves
04-10-1992

Q, Mcfd

10^2

PC^2-PW^2

10^1

10^2
AOF = 66

10^3

