

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

Form C-122

*CLSF
File*

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 12/20/92			
Company Yates Petroleum Corp				Connection Navajo			DEC 27 '94	
Pool Cisco				Formation Wildcat				
Completion Date 12/17/92		Total Depth 8900		Plug Back TD 8829		Elevation 3580		Farm or Lease Name Federal AB Com
Csg. Size 5.500	Wt. 15.500	d 4.950	Set At 8900	Perforations: From 8582 To 8588			Well No. 11	
Tbg. Size 2.875	Wt. 6.500	d 2.441	Set At 8552	Perforations: From 8582 To 8588			Unit Sec. Twp. Rge. F 30 18S 25E	
Type Well Single				Packer Set At 8552			County Eddy	
Producing Thru Tubing		Resv Temp. °F 143 @ 8585		Mean Temp. °F 62		Baro. Press. - Pa 13.2		State New Mexico
L 8552	H 8552	Gg 0.668	%CO ₂ 0.090	%N ₂ 1.270	%H ₂ S 0.000	Prover 0.000	Meter Run 3.000	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
SI.	0.000	x	0.000	0	0.0	0	2000	0			0
1.	3.068	x	1.875	1344	2.2	45	1840	62			24
2.	3.068	x	1.875	1277	6.3	43	1635	62			24
3.	3.068	x	1.875	1156	9.4	41	1430	62			24
4.	3.068	x	1.875	1225	15.0	40	1225	62			24
5.		x									

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{hwPm}$	Pressure Pm	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1.	18.290	54.6	1357.1	1.0148	1.224	1.176	1457
2.	18.290	89.9	1290.6	1.0168	1.224	1.171	2394
3.	18.290	105.0	1168.9	1.0188	1.224	1.158	2771
4.	18.290	136.3	1238.2	1.0198	1.224	1.169	3636
5.							

NO.	Pr	Temp °R	Tr	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
					0	
					A.P.I. Gravity of Liquid Hydrocarbons	0.000 Deg.
1.	2.03	505	1.35	0.723	Specific Gravity Separator Gas	0.668 XXXXXXXXXXXX
2.	1.93	503	1.34	0.729	Specific Gravity Flowing Fluid	XXXXXXXXXX 0.668
3.	1.75	501	1.34	0.746	Critical Pressure	668 P.S.I.A. 668 P.S.I.A.
4.	1.85	500	1.33	0.732	Critical Temperature	375 °R 375 °R
5.						

Pc	2013.2	Pc²	4053.0
NO.	Pt²	Pw	Pw²
1.	3434.4	1857.8	3451.5
2.	2716.6	1662.4	2763.5
3.	2082.8	1465.3	2147.0
4.	1533.1	1283.3	1646.8
5.			

(1) $\frac{Pc^2}{Pc^2 - Pw^2} = 3.143$

AOF = Q $\left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 5092$

(2) $\left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 2.127$

Absolute Open Flow	5092	Mcf/d @ 15.025	Angle of Slope	0 33	Slope, n	0.659
Remarks:						
Approved By Commission:		Conducted By: Ed Perry		Calculated By: Andrea Carpenter		Checked By:

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

DATE 12/20/92

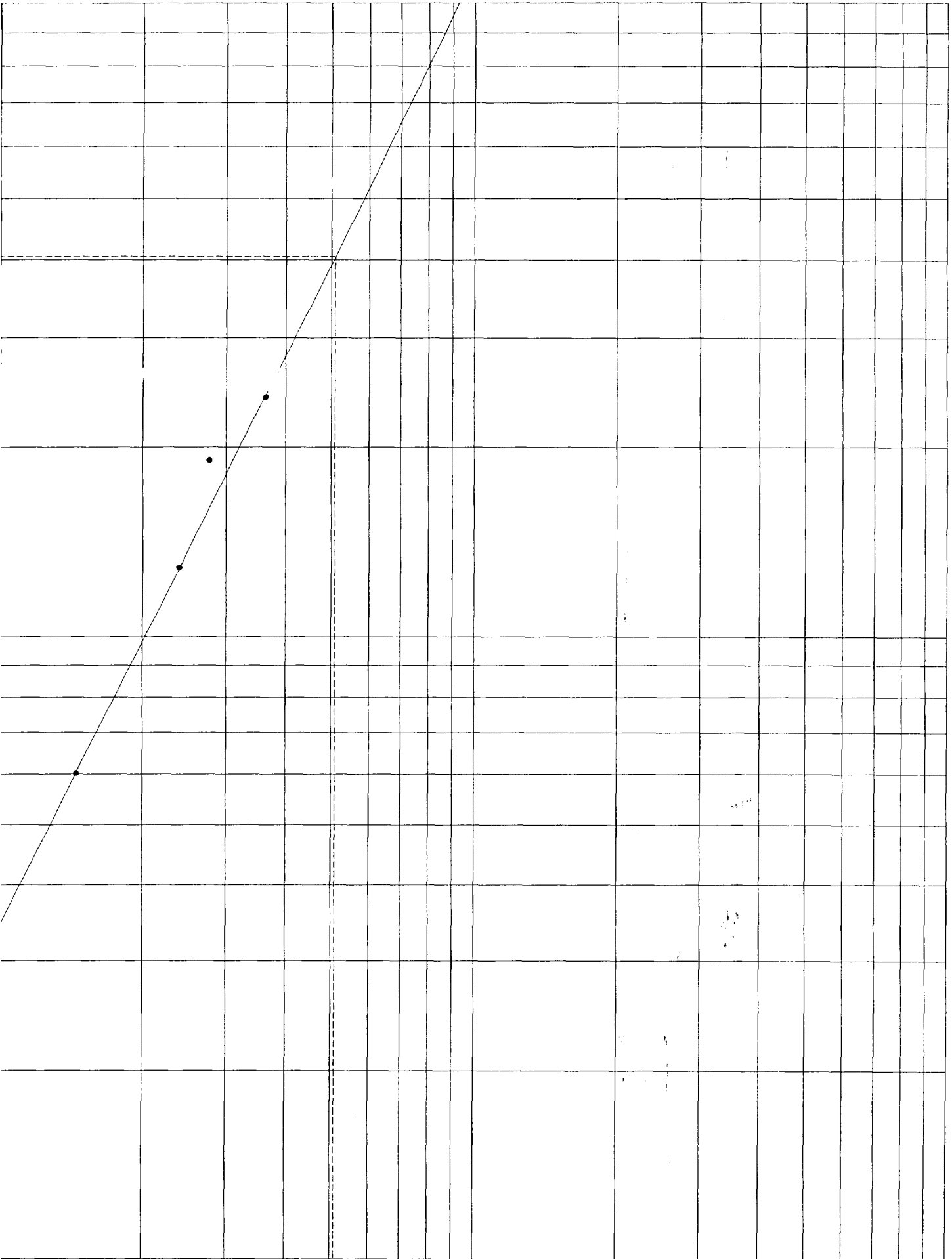
COMPANY Yates Petroleum Corp LEASE Federal AB Com WELL NO. 11

LOCATION: Unit F Section 30 Township 18S Range 25E

L 8552 H 8552 L/H 1.000 G 0.668 %CO₂ 0.090 %N₂ 1.270 %H₂S 0.000

d 2.441 Fr 0.010495 GH 5712.7 Pcr 667.9 Tcr 374.7

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	1.457	2.394	2.771	3.636	
2 Tw(W.H.°R)	522	522	522	522	
3 Ts(B.H.°R)	603	603	603	603	
4 T = (Tw+Ts) / 2	562.2	562.2	562.2	562.2	
5 Z (Est.)	0.772	0.780	0.794	0.812	
6 TZ	433.8	438.4	446.2	456.4	
7 GH / TZ	13.169	13.031	12.804	12.517	
8 e ^s (Table XIV)	1.639	1.630	1.616	1.599	
9 1-e ^s (Table XIV)	0.390	0.387	0.381	0.375	
10 Pt	1853.2	1648.2	1443.2	1238.2	
11 Pt ² / 1000	3434.4	2716.6	2082.8	1533.1	
12 Fr (Table XV)	0.010495	0.010495	0.010495	0.010495	
13 Fc = FrTZ	4.553	4.601	4.683	4.790	
14 FcQm	6.63	11.02	12.98	17.42	
15 L / H(FcQm) ²	44.0	121.4	168.4	303.3	
16 Fw = L / H(FcQm) ² (1-e ^s)	17.15	46.91	64.22	113.62	
17 Pw ² = Pt ² +Fw	3451.5	2763.5	2147.0	1646.8	
18 Ps ² = e ^s Pw ²	5655.7	4504.8	3470.3	2633.2	
19 Ps	2378.2	2122.5	1862.9	1622.7	
20 P = (Pt+Ps) / 2	2115.7	1885.3	1653.0	1430.5	
21 Pr = (P / Pcr)	3.17	2.82	2.48	2.14	
22 Tr = (T / Tcr)	1.50	1.50	1.50	1.50	
23 Z (Table XI)	0.772	0.780	0.794	0.812	



PC-PW