

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

DATE 02/21/2000

COMPANY Yates Petroleum Corp LEASE Spear OA Federal WELL NO. 3

LOCATION: Unit L Section 15 Township 9S Range 26E

L 6246 H 980 L/H 6.373 G 0.640 %CO₂ 0.162 %N₂ 3.844 %H₂S 0.000

d 1.995 Fr 0.017777 GH 627.2 Pcr 664.9 Tcr 358.2

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	3.200	3.245	3.290	3.334	
2 Tw(W.H.°R)	520	520	520	520	
3 Ts(B.H.°R)	580	580	580	580	
4 T = (Tw+Ts) / 2	549.7	549.7	549.7	549.7	
5 Z (Est.)	0.881	0.882	0.884	0.885	
6 TZ	484.4	485.1	485.8	486.5	
7 GH / TZ	1.295	1.293	1.291	1.289	
8 e ^s (Table XIV)	1.050	1.050	1.050	1.050	
9 1-e ^s (Table XIV)	0.047	0.047	0.047	0.047	
10 Pt	823.2	810.2	796.2	783.2	
11 Pt ² / 1000	677.7	656.4	633.9	613.4	
12 Fr (Table XV)	0.017777	0.017777	0.017777	0.017777	
13 Fc = FrTZ	8.611	8.623	8.636	8.648	
14 FcQm	27.55	27.98	28.41	28.83	
15 L / H(FcQm) ²	4839.0	4991.0	5145.0	5298.5	
16 Fw = L / H(FcQm) ² (1-e ^s)	229.36	236.22	243.18	250.11	
17 Pw ² = Pt ² +Fw	907.0	892.6	877.1	863.5	
18 Ps ² = e ^s Pw ²	952.1	937.0	920.6	906.3	
19 Ps	975.8	968.0	959.5	952.0	
20 P = (Pt+Ps) / 2	899.5	889.1	877.8	867.6	
21 Pr = (P / Pcr)	1.35	1.34	1.32	1.30	
22 Tr = (T / Tcr)	1.53	1.53	1.53	1.53	
23 Z (Table XI)	0.881	0.882	0.884	0.885	

Company
Well
Location

Yates Petroleum Corp
Spear OA Federal #3
L 15-9S-26E

County
Date

Chaves
02-21-2000

