

WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (P_w)

C-122D
Adopted 9-1-65

COMPANY YPC LEASE Ross 12 Am WELL NO. 1 DATE 2-16-79

LOCATION: Unit F Section 28 Township 19S Range 25E

L 8840 H 8540 L/H 1.00 G 0.594 % CO₂ 0.49 % N₂ 1.19 % H₂S N/I
 $2\frac{3}{8} - 8841(3.98) 35139.4$ d 2.029 F_i 0.015962 GH 5187 P_{cr} 672 T_{cr} 351.5
 $5\frac{1}{2} - 8842(3.93) 14597$ $8810(4.16) 3659.1$ TABLE IX & X TABLE IX & X

LINE	1	2	3	4	5	1	2	3	4
1 Q _m	-	0.123	0.169	0.227	0.275	-	0.123	0.169	0.227
2 T _w (W.H. °R)	512	532	534	536	538				
T _s (B.H. °R)	616	610	609	607	608				
4 T = ($\frac{L_w + 1}{2}$)	569.5	571	571.5	572.5	573		571	571.5	572.5
5 Z (Est.)	0.845	0.830	0.826	0.830	0.835		0.831		
6 TZ	481.31	473.93	472.06	475.175	478.455		474.501		
7 GH/TZ	10.970	11.141	11.185	11.117	11.0355		11.1275		
8 e ^s (Table XIV)	1.508	1.5186	1.5211	1.5169	1.5126		1.5178		
9 1-e ^s (Table XIV)		0.3415	0.3426	0.3408	0.3389		0.3412		
10 P _i	2903.2	2503.2	2324.2	2058.2	1836.2		2503.2		
11 P _i 2/1000		6266.0	5401.9	4236.2	3371.6		6266.0		
12 F _i (Table XV)	0.411374	0.41778	0.41944	0.41669	0.41383		0.41728		
F _c = F _i TZ		7.5649	7.535	7.5847	7.6371		7.574		
14 F _c Q _m		0.9305	1.2734	1.7817	2.100		0.9316		
15 L/H (F _c Q _m) ²		0.866	1.6216	2.964	4.41		0.868		
16 F _w = L/H (F _c Q _m) ² (1-e ^s)		0.3	0.6	1.0	1.5		0.3		
17 P _w ² = P _i ² + F _w		6266.3	5402.5	4237.2	3373.1		6266.3		
18 P _s ² = e ^s P _w ²	12717.8	9516.0	8217.2	6427.4	5102.2		9511.0		
19 P _s	356.3	3084.8	2866.7	2535.2	2258.8		3084.0		
20 P = ($\frac{P_i + P_s}{2}$)	3234.5	2794.0	2595.5	2296.7	2047.5		2793.6		
21 P _i = (P/P _{cr})	4.8155	4.158	3.862	3.417	3.047		4.157		
22 T _i = (T/T _{cr})	1.626	1.6245	1.626	1.627	1.630		1.6245		
23 Z (Table XI)		0.831	0.826	0.830	0.835		0.831		