

WORKSHEET FOR CALCULATION OF ST. C COLUMN WELLHEAD PRESSURE (P_{sc})

C-122D
Accepted 9-1-65

COMPANY Burleson and Noll LEASE C-122D WELL NO. 2 DATE 2-6-69

LOCATION: Unit 28 Section 28 Township 25 Range 37

L 2660 H 3325 L/H 1.097 G 643 %CO₂ 0 %N₂ 0 %H₂S 0

d 1.225 F_r 0.18231 GH 2112 P_{cr} 670 T_{cr} 372

TABLE IX & X
4200 PSI

LINE	1st Rate	2nd Rate	3rd Rate	P _{cr}	T _{cr}
1 Q _m					
2 T _w (W.H. °R)	530	1.142		1.705	
3 T _s (B.H. °R)	528	529		530	
4 T = $(\frac{T_w + T_s}{2})$	565	565		565	
5 Z (Est.)	544.5	547		547.5	
6 TZ	892	892	920	942	943
7 GH/TZ	486.6	483.3	500.5	516	517
8 e ^s (Table XIV)	4.340	4.320	4.220	4.223	4.093
9 1-e ^s (Table XIV)	1.177	1.178	1.176	1.171	1.166
10 P _t	150	151	145	146	142
11 P _t ² /1000	700.2	700.2	661.2	469.2	313.2
12 F _r (Table XV)	490.3	490.3	437.2	220.1	98.1
13 F _c = F _r TZ	0.18231	0.18231	0.18231	0.18231	0.18231
14 F _c Q _m	8.871	8.811	9.196	9.125	9.407
15 L/H (F _c Q _m) ²	1.162	1.154	4.874	13.158	16.320
16 F _w = L/H (F _c Q _m) ² (1-e ^s)	1.093	1.079	19.232	140.12	208.20
17 P _w ² = P _t ² + F _w	1.164	1.163	2.8	20.7	29.6
18 P _s ² = e ^s P _w ²	490.5	490.5	440.6	240.8	127.7
19 P _s	577.3	577.3	517.3	281.7	148.9
20 P = $(\frac{P_t + P_s}{2})$	759.8	759.8	719.2	530.5	385.9
21 P _r = (P/P _{cr})	730.	730.	690.2	499.9	349.6
22 T _r = (T/T _{cr})	1.09	1.09	1.03	.75	.52
23 Z (Table XI)	1.47	1.47	1.47	1.47	1.47
	886	886	892	920	943