WORKSHEET FOR CALCULATION OF ST. C COLUMN WELLHEAD PRESSURE (P_w)

C-122D
Adopted 9-1-65

COMPANY Burleson & Huff LEASE Leonard WELL NO. #1 DATE 8/30/76

LOCATION: Unit P Section 20 Township 25 Range 37

L 2690 H 2690 L/H 1.000 G .652 % CO_2 ____ % N_2 ____ % H_2S ____

d 2.441 F_r .010763 GH 1754 P_{cr} 670 (TABLE IX & X) T_{cr} 375 (TABLE IX & X)

LINE	1st	2nd	1st	2nd	1st	2nd	1st	2nd		
1 Q_m	.105	.105	.208	.208	.250	.250	.289	.289		
2 T_w (W.H. °R)	534	534	534	534	534	534	534	534		
3 T_s (B.H. °R)	560	560	560	560	560	560	560	560		
4 $T = (\frac{T_w + T_s}{2})$	547	547	547	547	547	547	547	547		
5 Z (Est.)	.947	.944	.953	.952	.959	.958	.964	.962		
6 TZ	518.0	516.4	521.3	520.7	524.6	524.0	527.3	526.2		
7 GH/TZ	3.386	3.397	3.365	3.368	3.344	3.347	3.326	3.333		
8 e^s (Table XIV)	1.135	1.136	1.134	1.135	1.134	1.134	1.133	1.133		
9 $1-e^{-s}$ (Table XIV)	.119	.120	.119	.119	.118	.118	.117	.118		
10 P_t	316.2	316.2	273.2	273.2	238.2	238.2	213.2	213.2		
11 $P_t{}^2/1000$	100.0	100.0	74.64	74.64	56.74	56.74	45.45	45.45		
12 F_r (Table XV)	.010763	.010763	.010763	.010763	.010763	.010763	.010763	.010763		
13 $F_c = F_r$ TZ	5.575	5.558	5.611	5.605	5.646	5.640	5.625	5.664		
14 $F_c Q_m$	.585	.584	1.167	1.166	1.411	1.410	1.640	1.637		
15 $L/H (F_c Q_m)^2$	.343	.341	1.362	1.359	1.992	1.988	2.690	2.679		
16 $F_w = L/H(F_c Q_m)^2(1-e^{-s})$	.041	.041	.161	.161	.235	.235	.315	.315		
17 $P_w{}^2 = P_t{}^2 + F_w$	100.0	100.0	74.80	74.80	56.97	56.97	45.77	45.77		
18 $P_s{}^2 = e^s P_w{}^2$	113.57	113.61	84.86	84.87	64.59	64.59	51.85	51.86		
19 P_s	337.0	337.1	291.3	291.3	254.1	254.2	227.7	227.7		
20 $P = (\frac{P_t + P_s}{2})$	326.6	326.6	282.3	282.3	246.2	246.2	220.5	220.5		
21 $P_r = (P/P_{cr})$	.49	.49	.42	.42	.37	.37	.33	.33		
22 $T_r = (T/T_{cr})$	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.46		
23 Z (Table XI)	.944	.944	.952	.952	.958	.958	.962	.962		