

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

DATE 11/9/86

COMPANY MYCO INDUSTRIES LEASE EAST TURKEY TRACK FEDERAL COM2

LOCATION: Unit C Section 26 Township 18S Range 29E

L 11790 H 11790 L/H 1.000 G 0.639 %CO₂ 0.554 %N₂ 0.645 %H₂S 0.000

d 2.441 Fr 0.010495 GH 7533.8 Pcr 672.0 Tcr 366.1

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	2.636	2.878	3.058	3.207	
2 Tw(W.H.°R)	520	520	520	520	
3 Ts(B.H.°R)	632	632	632	632	
4 T = (Tw+Ts) / 2	575.7	575.7	575.7	575.7	
5 Z (Est.)	0.820	0.842	0.872	0.906	
6 TZ	472.3	484.8	501.9	521.8	
7 GH / TZ	15.951	15.540	15.009	14.437	
8 e ^{As} (Table XIV)	1.819	1.791	1.755	1.718	
9 1-e ^{As} (Table XIV)	0.450	0.442	0.430	0.418	
10 Pt	1538.2	1230.2	921.2	613.2	
11 Pt ² / 1000	2366.1	1513.4	848.6	376.0	
12 Fr (Table XV)	0.010495	0.010495	0.010495	0.010495	
13 Fc = FrTZ	4.957	5.088	5.268	5.477	
14 FcQm	13.07	14.64	16.11	17.57	
15 L / H(FcQm) ²	170.7	214.4	259.5	308.6	
16 Fw = L / H(FcQm) ² (1-e ^{As})	76.85	94.70	111.74	128.98	
17 Pw ² = Pt ² +Fw	2442.9	1608.1	960.4	505.0	
18 Ps ² = e ^{As} Pw ²	4443.0	2880.0	1685.8	867.8	
19 Ps	2107.8	1697.1	1298.4	931.6	
20 P = (Pt+Ps) / 2	1823.0	1463.6	1109.8	772.4	
21 Pr = (P / Pcr)	2.71	2.18	1.65	1.15	
22 Tr = (T / Tcr)	1.57	1.57	1.57	1.57	
23 Z (Table XI)	0.820	0.842	0.872	0.906	