

WORKSHEET FOR CALCULATION OF 1.0 COLUMN WELLHEAD PRESSURE (P_w)

C-122D
Adopted 8-1-65

COMPANY MARSHALL PIPE & SUPPLY LEASE PERCY WELL NO. 1 (156) DATE

LOCATION: Unit A1 Section 23 Township 2-S Range 23

L 6548 H 6948 L/H 1.000 G.M.A. = 1.701 % CO₂ 2.62 % N₂ 7.22 % H₂S 0

ANNUAL FLOW WITH 4892 ¹⁵⁶ ₇₈₆ ¹⁵⁶ ₇₈₆ F_r .0034410 GH 4870.5 P_{cr} 669 * * T_{cr} 378 * *
TABLE IN 8.8

LINE	1st	2nd	1st	2nd	1st	2nd	1st	2nd
1 Q _m	.493	.493	.710	.710	.785	.785	1.499	1.499
2 T _w (W.H. °R)	534	534	534	534	534	534	534	534
3 T _s (B.H. °R)	604	604	604	604	604	604	604	604
4 T = ($\frac{1}{2} \frac{W}{T_s} + T_s$)	569	569	569	569	569	569	569	569
5 Z (Est.)	.758	.778	.769	.788	.776	.792	.788	.802
6 T _Z	457.8	469.9	469.4	473.9	468.7	478.3	475.9	484.4
7 GH/T _Z	10.638	10.369	10.486	10.233	10.391	10.181	10.233	10.054
8 e ^s (Table XIV)	1.490	1.475	1.481	1.467	1.476	1.464	1.467	1.457
9 1-e ^s (Table XIV)	.328	.322	.325	.318	.322	.317	.318	.314
10 P _t	1772.2	1772.2	1622.2	1622.2	1557.2	1557.2	1439.2	1439.2
11 P _t 2/1000	3140.7	3140.7	2631.5	2631.5	2424.9	2424.9	2071.3	2071.3
12 F _t (Table XV)	.0034410	.0034410	.0034410	.0034410	.0034410	.0034410	.0034410	.0034410
13 F _c = F _t T _Z	1.57	1.61	1.59	1.63	1.61	1.64	1.63	1.66
14 F _c Q _m	.77	.79	1.13	1.16	1.26	1.29	2.45	2.49
15 L/H (F _c Q _m) ²	.60	.63	1.28	1.35	1.60	1.66	6.02	6.24
16 F _w = L/H (F _c Q _m) ² (1-e ⁻⁵)	.19	.20	.41	.43	.51	.52	1.92	1.96
17 P _w ² = P _t ² + F _w	3140.8	<u>3140.9</u>	2631.9	<u>2631.9</u>	2425.3	<u>2425.9</u>	2073.2	<u>2073.2</u>
18 P _s ² = e ^s P _w ²	4680.6	4632.9	3899.9	3863.1	3581.1	3553.0	3043.0	3022.7
19 P _s	2163.4	2152.9	1974.8	1965.4	1892.3	1884.9	1704.4	1738.6
20 P = ($\frac{1}{2} \frac{P_s}{P_s}$)	1967.8	1962.3	1798.5	1793.8	1724.7	1721.0	1591.8	1588.9
21 P _t = (P/P _{cr})	2.94	2.94	2.68	2.68	2.57	2.57	2.137	2.137
22 T _t = (T/T _{cr})	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
23 Z (Table XI)	.778	.778	.788	.788	.792	.798	.802	.802

** = CORRECTED FOR 002 & NL

Area must be filed in District Office (Work copy acceptable)