WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (P_w)

C-122D
Adopted 9-1-65

COMPANY YPC LEASE State HU WELL NO. 1 DATE 7-26-77

LOCATION: Unit N Section 7 Township 19-S Range 28 E

L 9822 H 9822 L/H ____ G 1.032 % CO_2 0.30 % N_2 0.79 % H_2S N.I

$2\frac{3}{8}$ - 9966 (3.98) = 38868.7
$5\frac{1}{2}$ - $2\frac{3}{8}$ - 46 (18.29) = 841.3
$5\frac{1}{2}$ - 4 - 10 (7.93) = 79.3
~~39789.3~~

d 2.0127 F_r .017392 GH 10136 P_{cr} 657 (TABLE IX & X) T_{cr} 498 (TABLE IX & X)

LINE		1	2	3	4		1	2	3	4
1 Q_m	SI	3.032	4.019	5.540	7.785	SI	3.032	4.019	5.540	7.785
2 T_w (W.H. °R)	555	557	558	559	560					
3 T_s (B.H. °R)	620	619	618	617	616					
4 $T = (\frac{T_w + T_s}{2})$	587.5	588	588	588	588		588	588	588	588
5 Z (Est.)	.7205	.706	.693	.681	.622		.7045	.6915	.682	.620
6 TZ	423.294	415.128	407.484	400.43	365.736		414.25	406.602	401.016	364.56
7 GH/TZ	23.945	24.417	24.875	25.313	27.714		24.469	24.929	25.276	27.803
8 e^S (Table XIV)	2.45456	2.4983	2.5416	2.5837	2.8272		2.5032	2.5468	2.5801	2.8366
9 $1 - e^{-S}$ (Table XIV)		0.5997	0.6066	0.6130	0.6463		0.6005	0.6073	0.6124	0.6475
10 P_t	2726.2	2591.2	2484.2	2312.2	1841.2		2591.3	2484.2	2312.2	1841.2
11 $P_t{}^2/1000$	7432.2	6714.3	6171.25	5346.3	3390.0		6714.3	6171.25	5346.3	3390.0
12 F_r (Table XV)	.89795	.91562	.93281	.94923	1.0393		.91757	.93482	.94784	1.0426
13 $F_c = F_r$ TZ		7.2199	7.0870	6.9643	6.3609		7.2046	7.0716	6.9745	6.3404
14 F_c Q_m		21.89	28.483	38.582	49.520		21.844	28.421	38.639	49.360
15 $L/H\ (F_c\ Q_m)^2$		479.2	811.26	1488.6	2452.19		477.18	807.745	1492.9	2436.4
16 $F_w = L/H(F_c Q_m)^2(1-e^{-S})$		287.4	492.111	912.5	1584.9		286.55	490.54	914.3	1577.6
17 $P_w{}^2 = P_t{}^2 + F_w$		7001.7	6663.36	6258.8	4974.9		7000.87	6661.79	6260.6	4967.6
18 $P_s{}^2 = e^S P_w{}^2$	18242.8	17492.3	16935.6	16170.9	14064.9		17524.6	16966.2	16153.0	14091.1
19 P_s	4271.2	4182.4	4115.3	4021.3	3750.3		4186.2	4119.0	4019.1	3753.8
20 $P = (\frac{P_t + P_s}{2})$	3498.2	3386.8	3299.7	3166.8	2795.8		3388.7	3301.6	3165.6	2797.5
21 $P_r = (P/P_{cr})$	5.325	5.155	5.022	4.82	4.255		5.158	5.025	4.82	4.258
22 $T_r = (T/T_{cr})$	1.180	1.180	1.180	1.180	1.180		1.180	1.180	1.180	1.180
23 Z (Table XI)	.7205	.7045	.6915	.682	.620		.7045	.6915	.682	.620

One copy to be filed in District Office (Work copy acceptable)