

WORKSHEET FOR CALCULATION OF SIC COLUMN WELLHEAD PRESSURE (P_w)

C-1220
Adopted 9-1-65

COMPANY

States Petroleum Corp

LEASE

Stonewall ET State land

WELL NO. 4

DATE

2-27-72

LOCATION: Unit

H-1

Section

30

Township

20S

Range

28E

L 11 143

11 1148

L/H

1.000

G

0.627

% CO₂

0.95

% N₂

0.31

% H₂S

N7

$\frac{2.76}{57.28} = 0.0482$
 $\frac{57.28}{172.1} = 0.3328$
 $\frac{1142(4.043)}{45673.4} = 0.0099$

d 2.0108

F_r

0.017394

GH

6990

P_{cr}

673.5

T_{cr}

365.5

TABLE IX B X

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LINE	1	2	3	4	SIC	1	2	3	4
1 Q _m		2.679	3.846	5.366	7.435		2.679	3.846	5.366
2 T _w (W.H. °R)	627	626	625	625					
3 T _s (B.H. °R)	517	522	528	533	537				
4 T = ($\frac{T_w}{2} + \frac{T_s}{2}$)	572	574	577	579	581		574	577	579
5 Z (Est.)	.8605	.840	.830	.830	.819		.839	.8325	.825
6 TZ	493.206	482.16	478.91	480.57	475.84		481.536	480.353	477.675
7 GH/TZ	14.201	14.499	14.596	14.545	14.690		14.5145	14.552	14.633
8 e ^s (Table XIV)	1.70327	1.7223	1.7287	1.7254	1.7348		1.7234	1.7258	1.7311
9 1-e ^s (Table XIV)		0.4194	0.4215	0.4204	0.4236		0.4198	0.4206	0.4223
10 P _t	32.552	2944.2	2785.2	2577.2	2253.2		2944.2	2785.2	2597.2
11 P _t 2/1000	10596.3	8668.3	7757.3	6642.0	5076.9		8668.3	7757.3	6642.0
12 F _r (Table XV)	0.53255	0.54364	0.54735	0.54545	0.55027		0.54430	0.54569	0.54875
3 F _c = F _r TZ		8.3867	8.3302	8.359	8.2269		8.3767	8.3553	8.3087
14 F _c Q _m		22.468	32.454	44.855	61.538		22.441	32.552	44.594
15 L/H (F _c Q _m) ²		504.8	1053.3	2011.9	3786.9		503.6	1059.64	1987.8
16 F _w = L/H (F _c Q _m) ² (1-e ^s)		211.7	443.9	845.8	1604.1		211.4	445.7	859.4
17 P _w ² = P _t ² + F _w		2880.0	9201.2	7487.8	6681.0		3879.7	2203.0	7180.4
18 P _s ² = e ^s P _w ²	18048.4	15294.0	14177.4	12919.4	11590.2		15303.5	14156.7	12931.6
19 P _s	4248.3	3910.8	3765.3	3594.4	3404.4		3911.9	3762.5	3593.8
20 P = ($\frac{P_t + P_s}{2}$)	3751.7	3429.5	3295.2	3085.8	2828.2		3428.1	3273.9	3059.0
21 P _r = (P/P _{cr})	5.590	5.089	4.863	4.582	4.200		5.090	4.861	4.585
22 T _r = (T/T _{cr})	1.569	1.570	1.579	1.584	1.590		1.570	1.579	1.594
23 Z (Table XI)	0.805	0.879	0.885	0.885	0.888		0.879	0.8825	0.885