

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

C-122D
Adopted 9-1-65

COMPANY ARCO LEASE PARCIPS A WELL NO. 9 DATE 3-5-71

LOCATION: Unit 9353 Section 31 Township 19 Range 57

L 9353 H 9353 L/H 1.0 G 654 % CO₂ 382 % N₂ 1 % H₂S 375

d 1.995 F_r 0.018231 GH 6117 P_{cr} 670 T_{cr} 375
157 2ND 3RD TABLE IX & X TABLE IX & X

LINE	1	2	1	2	1	2	1	2	1	2	1	2
1 Q _m	545	545	1483	1483	1483	1483	1.854	2.375	2.375	2.375	2.375	2.375
2 T _w (W.H. °R)	534	534	534	534	534	534	534	534	534	534	534	534
3 T _s (B.H. °R)	625	625	625	625	625	625	625	625	625	625	625	625
4 T = $(\frac{T_w + T_s}{2})$	580	580	580	580	580	580	580	580	580	580	580	580
5 Z (Est.)	832	819	825	831	825	831	847	835	840	852	852	852
6 TZ	483	474	479	482	479	482	491	484	487	494	494	494
7 GH/TZ	12.665	12.905	12.770	12.691	12.691	12.691	12.458	12.561	12.561	12.383	12.383	12.383
8 e ^s (Table XIV)	1.608	1.622	1.614	1.609	1.609	1.609	1.595	1.606	1.602	1.591	1.591	1.591
9 1-e ^s (Table XIV)	378	383	380	379	379	379	373	377	376	371	371	371
10 P _t	1472	1472	1287.2	1287.2	1287.2	1287.2	1243.2	1053.2	1053.2	1053.2	1053.2	1053.2
11 P _t ² /1000	2167.4	2167.4	1662.0	1662.0	1662.0	1662.0	1545.5	1109.2	1109.2	1109.2	1109.2	1109.2
12 F _r (Table XV)	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231
13 F _c = F _r TZ	8.806	8.641	8.733	8.787	8.787	8.787	8.951	8.824	8.878	9.006	9.006	9.006
14 F _c Q _m	4799	4709	1695	13.03	13.03	13.03	11.595	16.359	21.086	21.390	21.390	21.390
15 L/H (F _c Q _m) ²	2303	2218	163.70	169.82	169.82	169.82	275.39	267.64	444.54	457.53	457.53	457.53
16 F _w = L/H (F _c Q _m) ² (1-e ^s)	8.705	8.494	63.73	64.36	64.36	64.36	102.72	100.90	167.18	167.74	167.74	167.74
17 P _w ² = P _t ² + F _w	2176.1	2175.9	1725.7	1726.4	1726.4	1726.4	1648.2	1646.4	1276.4	1278.9	1278.9	1278.9
18 P _s ² = e ^s P _w ²	3499.2	3529.3	2785.3	2777.7	2777.7	2777.7	2628.9	2644.1	2044.9	2034.8	2034.8	2034.8
19 P _s	1870.6	1878.6	1668.9	1666.6	1666.6	1666.6	1621.4	1626.1	1430.0	1426.5	1426.5	1426.5
20 P = $(\frac{P_t + P_s}{2})$	1671.4	1675.4	1479.1	1477.9	1477.9	1477.9	1432.3	1434.7	1241.6	1239.8	1239.8	1239.8
21 P _r = (P/P _{cr})	2.495	2.501	2.21	2.21	2.21	2.21	2.14	2.14	1.85	1.85	1.85	1.85
22 T _r = (T/T _{cr})	1.547	1.547	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55
23 Z (Table XI)	818	818	831	831	831	831	835	835	852	852	852	852

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OIL CONSERVATION COMM.
HOBBS, N. M.