

FORM C-1022 WORKSHEET FOR STEPWISE CALCULATION (SURFACE) PRESSURE (Pc & Pw) \*\*\*

COMPANY : COLLINS AND WARE LEASE VS SHOOTER WELL NO. : FED 13 NO 1 DATE : 11 20 91 \*\*\*  
 UNIT : B SECTION : 13 TOWNSHIP : 20 RANGE : 33 \*\*\*  
 L : 13282 H : 13282 L/H : 1.0 G/GMIX : 0.677 \*\*\*  
 CGG : 0.59 N2 : 0.53 H2S : 0.53 \*\*\*  
 d : 2.441 Fr : 0.010763 Qm : 0.000 (L/H) (FrQm) : 000000 \*\*\*

PCR : 669 TCR : 382 \*\*\*

LINE	ITEM	SOURCE	1	2	3	4	5	6
1	H		13282	6641		0		
2	SH		18991.914	4493.96		0		DELTA P = 1152.6
3	37.56H		337197	168598		0		Pw = 3569.7
4	Pc or Pn		4022.3	3474.5	3461.1	2901.5	2863.4	2867.2
5	Pr		6.07	5.19	5.17	4.34	4.28	4.29
6	T		666.82	600.41	600.41	534	534	534
7	Tr		1.75	1.57	1.57	1.40	1.40	1.40
8	Z		0.837	0.848	0.847	0.732	0.732	0.730
9	P/Pr	498	4500.0	4097.0	4088.0	3965.0	3912.8	3900.0
10	P/Tr	396	6.4980	6.8206	6.8037	7.4280	7.3274	7.3555
11	LH(1000)/(1000)							
12	LH(FrQm)/Q							
13		11412						
14	In	10/13	153.886	146.550	146.978	134.679	136.474	135.809
15	M=Pr-Pn-1			548	561	560	598	594
16	N=In-In-1			300.436	300.864	281.657	283.452	282.557
17	M x N	15x16			163839			168006
18	SUM(MxN)	SUM17	337197		168358			