

WORK SHEET FOR STEPWISE CALCULATION

(SURFACE)

PRESSURE
(P_c & P_w)

1st

Form C-112-E
Adopted 9-1-65

COMPANY Liberty Oil & Gas LEASE Lee Federal Com WELL NO. 2 DATE 3.27.83

LOCATION: Unit 11230 Section 25 Township 20S Range 28E

L 11230 H 11230 L/H 1.000 G mix .6355 % CO₂ .990 % N₂ .446 % H₂S
d 1/995 F_r .01823 Q_m 0 M^2 c/d (L/H) ($F_r Q_m$)² 0 P_{cr} 670 T_{cr} 372

LINE	ITEM	SOURCE	1	2	3	4	5	6	7	8	9	10
1	H		11230	5615		0						
2	GH		7136.7	3568.3		0						
3	37.5GH		267,625	133,812		0						
4	P_c or P_n		4382.2	3900.9	3891.3	3401.0	3372.8	3373.9		$P_w = 3377.1$		
5	P_r		6.54	5.82	5.81	5.08	5.03	5.04				
6	T		646	590	590	534	534	534				
7	T_r		1.74	1.59	1.59	1.44	1.44	1.44				
8	Z		.943	.883	.882	.791	.788	.789				
9	P/Z or P/Z		4647.1	4417.8	4411.9	4299.6	4280.2	4276.2				
10	P/TZ		9.6	7.1936	7.4777	8.0517	8.0154	8.0079				
11	$(P/TZ)^2/1000$		(9.6) ² /1000									
12	$L/H(F_r Q_m)^2$											
13			$\bar{1} + \bar{1}^2$									
14	$\bar{1}_n$		$\bar{1} \div \bar{1}^3$	139.013	133.550	133.732	124.197	124.760	124.877			
15	$M = P_n - P_{n-1}$			481	491	490	518	517				
16	$N = \bar{1}_n + \bar{1}_{n-1}$			272.563	272.745	257.928	258.491	258.608				
17	$M \times N$			133901				133785				
18	$\Sigma (M \times N)$		$\Sigma \bar{1}^7$	133724								