

WORK SHEET FOR STEPWISE CALCULATION

FOR SURFACE PRESSURE (P_c & P_w)

4th

Form C-122-E
Adopted 9-1-65

COMPANY Liberty Oil & Gas LEASE Lee Federal Com WELL NO. 2 DATE 3/17/83

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 372
d 1.995 F_r .018231 Q_m 0 M²cid (L/H) (F_rQ_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	5617		0						
2	GH		7136.7	3568.3		0						
3	37.5GH		267,625	133,812		0						
4	P _c or P _n		4129.8	3725.9	3716.7	3241.7	3215.0	3216.4				
5	P _r		6.26	5.56	5.55	4.84	4.80	4.80				
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		.930	.870	.870	.779	.777	.777				
9	P/Z P/Z		4508.4	4282.6	4272.1	4161.4	4127.8	4139.6				
10	P/TZ		9.6	7.2587	7.2408	7.7929	7.7486	7.7520				
11	(P/TZ) ² /1000		(9.6) ² /1000									
12	L/H(F _r Q _m) ²											
13			I ₁ + I ₂									
14	I _n		I ₀ + I ₃	143.290	137.765	138.106	128.322	129.056	128.999			
15	M = P _n - P _{n-1}			467	476	475	502	500				
16	N = I _n + I _{n-1}			281.055	281.396	266.428	267.162	267.104				
17	M x N		15 x 16		133974			133622				
18	Σ (M x N)		Σ I ₇		133651							

P_w = 3219.3