Depressurization study on vessels

Process simulation using dynamic utility for studying depressurization on vessels with hydrocarbon. Battery limit of model calculations was up to startup compressor. The deliverable of study as follows

1. Vapor Suction Temperature Vs Suction Pressure

2. Quantity of fluid remaining in vessel at different time

	DERESSURISATION STUDY- PROPYLENE SYSTEM				
		WITH INSULATION			
Sr. No.	Time (SecondS)	Suction Pressure (Kg/ cm2 a)	Suction-Temp.(Deg. C)	Vessel Vap. Mass(Kg)	Vessel Liq. Mass(Kg)
1	0	17.31	41.40	6625.51	9542.39
2	300	16.08	38.26	6155.01	8951.58
3	600	14.99	35.26	5745.06	8377.04
4	900	13.94	32.20	5346.70	7861.83
5	1200	12.96	29.17	4977.73	7383.81
6	1500	12.02	26.14	4624.20	6952.64
7	1800	11.14	23.14	4290.90	6559.50
8	2100	10.31	20.12	3978.14	6200.71
9	2400	9.52	17.11	3684.40	5874.05
10	2700	8.80	14.13	3412.98	5572.79
11	3000	8.13	11.27	3161.11	5295.75
12	3300	7.49	8.36	2925.10	5043.64
13	3600	6.91	5.51	2706.38	4812.19
14	3900	6.37	2.71	2504.08	4599.25
15	4200	5.87	-0.05	2316.90	4403.39
16	4500	5.40	-2.76	2142.48	4224.75
17	4800	4.98	-5.42	1982.65	4058.99
18	5100	4.58	-8.03	1833.60	3907.67
19	5400	4.22	-10.57	1698.53	3765.73
20	5700	3.89	-13.09	1571.20	3637.50
21	6000	3.58	-15.52	1454.66	3518.23
22	6300	3.30	-17.91	1348.60	3406.60
23	6600	3.04	-20.22	1249.66	3304.48
24	6900	2.81	-22.49	1159.17	3209.09
25	7200	2.59	-24.69	1077.03	3119.32
26	7500	2.39	-26.85	999.40	3037.84
27	7800	2.21	-28.95	929.32	2960.62
28	8100	2.05	-30.97	864.57	2888.83
29	8400	1.90	-32.94	805.06	2821.67
30	8700	1.76	-34.87	750.30	2758.88
31	9000	1.63	-36.74	699.53	2701.16
32	9300	1.52	-38.48	654.69	2646.95
33	9600	1.41	-40.15	614.14	2598.57
34	9900	1.33	-41.65	579.60	2555.15
35	10200	1.26	-42.95	550.57	2517.98
36	10500	1.20	-44.04	527.52	2487.71
37	10800	1.16	-44.82	511.34	2465.03