Student handout   Find the following derivatives

$$\left(\frac{\partial p}{\partial T}\right)_S \qquad\qquad \left(\frac{\partial p}{\partial V}\right)_T \tag{1}$$

from the contour map below

p

S = 8.33 kJ/K

12 atm

S=8.00 kJ/K

10 atm

S=7.67 kJ/K

V = 0.5 m³

8 atm

S=7.33 kJ/K

6 atm

4 atm

V = 1.2 m³

2 atm

500 K   600 K   700 K   800 K   900 K   1000 K

T