For nitely many $SL(2,R)$ matrices satisfying the standard proximality and strong irreducibility assumptions, one can de ne a natural pressure function. Its thermodynamic properties (e.g. equilibrium states and analyticity) are well understood for positive t. It is also known by work of D az, Gelfert, and Rams that there may be a region (1 , t_0], 1 $< t_0 <$ 0, where the pressure is constant. In work in progress with Mohammadpour, Bansard-Tresse, and Quas, we prove the existence and uniqueness of equilibrium states, as well as analyticity of the pressure function, in the remaining region (t_0, 0]. We further give an example where di erentiability of the pressure can fail at t_0. I will also discuss the applications of these results to large deviations and multifractal analysis.