Unconstrained Chern-Simons theory for the geometrically frustrated spin compound \( \text{SrCu}_2(\text{BO}_3)_2 \) CRISTIAN BATISTA, PINAKI SEN-GUPTA, LANL, SUCHITRA SEBASTIAN, Univ. of Cambridge, NEIL HARRISON, LANL — We show that an unconstrained Chern-Simons theory – where the local densities are determined in a self-consistent manner – correctly reproduces the sequence of magnetization plateaus recently observed in the geometrically frustrated spin compound \( \text{SrCu}_2(\text{BO}_3)_2 \) in an external magnetic field. The theory predicts that at the plateaus, the triplets are arranged in stripe patterns which is consistent with NMR experiments at and close to the 1/8 plateau.