The CLAS collaboration has measured the photoproduction of phi mesons off protons using linearly-polarized photons from coherent bremsstrahlung. In particular, we have measured the angular distributions of the decay pseudoscalar mesons ($\varphi \rightarrow K^+K^-$) in the rest frame of the photoproduced phi mesons. Polarization observables are extracted from the decay angular distribution and, in turn, these observables may be parameterized by the Spin Density Matrix Elements (SDMEs). These SDMEs, formed of bilinear combinations of helicity amplitudes, give straightforward relations for understanding the nature of the parity exchange at threshold energies, as well as for extracting signatures of the Okubo-Zweig-Iizuka violation. This paper will show our measurements of the SDMEs for reaction $\gamma p \rightarrow \varphi p$ from the g8b experimental data set taken in Hall B of Jefferson Lab with the CLAS detector. In particular, we shall show the observables from two separate coherent peak settings covering the respective photon energy ranges: 1.7 to 1.9 GeV (four momentum transfer squared *t* range of -1.2 to -0.25 GeV^2) and 1.9 to 2.1 GeV (*t* range of -1.4 to -0.25 GeV^2).