This bachelor's thesis focuses on exploring the SIDIS data collected at the COMPASS experiment in 2022. The beginning of the thesis briefly summarises the theory, including the SIDIS, the definition of the kinematic variables and the TMD-PDF functions, and the layout of the COMPASS experiment with its main components, which were used in 2022 data taking. The following part comprises target analysis, in which the target density is visualised and its position determined. In the last section, the bad spill analysis is used to investigate the stability of data, which is crucial for crucial for measurement of traverse spin asymmetries. A description of the procedure, a comparison of different selection criteria and results for two data-taking periods are presented.