We would like to thank you for the positive and constructive feedback. Below we addressed each specific issue and the manuscript has been updated accordingly.

(1) Line 132 of your revised manuscript, please provide some references for the sentence “Based on the filed survey of geomorphology and geology, the catchment can be divided into two parts”.

Thanks for this comment. A references was added.

Based on the field survey of geomorphology and geology (Ministry of Land and Resources of the People's Republic of China, 2015), the catchment can be divided into two parts, the flat eastern area, and the western mountainous area. The western

(2) Since your article focuses on the Maqu catchment, Tibetan Plateau, I strongly recommend that you submit a copy of the data to the National Tibetan Plateau/Third Pole Environment Data Center (https://data.tpdc.ac.cn/en/), which specializes in collecting, integrating, and publishing geoscientific data on and surrounding the Tibetan Plateau. This will help expand the impact of your valuable scientific dataset and the results of this paper.

Thanks a lot for this suggestion. The data is now available at the National Tibetan Plateau/Third Pole Environment Data Center.

Abstract. The Tibetan Plateau is the source of most of Asia's major rivers and has been called the Asian Water Tower. Detailed knowledge of its hydrogeology is paramount to enable the understanding of groundwater dynamics, which plays a vital role in headwater areas like the Tibetan Plateau. Nevertheless, due to its remoteness and the harsh environment, there is a lack of field survey data to investigate its hydrogeology. In this study, borehole core lithology analysis, altitude survey, soil thickness measurement, hydrogeological survey, and hydrogeophysical surveys (e.g., Magnetic Resonance Sounding – MRS, Electrical Resistivity Tomography – ERT, and Transient Electromagnetic – TEM) were conducted in the Maqu catchment within the Yellow River Source Region (YRSR). The soil thickness measurements were done in the western mountainous area of the catchment, where hydrogeophysical surveys were difficult to be carried out. The results indicate soil thicknesses are within 1.2 m in most cases, and the soil thickness decreases as the slope increases. The hydrogeological survey reveals that groundwater flows from the west to the east, recharging the Yellow River. The hydraulic conductivity ranges from 0.2 $m.d^{-1}$ to 12.4 $m.d^{-1}$. The MRS soundings results, i.e., water content and hydraulic conductivity, confirmed the presence of an unconfined aquifer in the flat eastern area. The depth of the Yellow River deposits was derived at several places in the flat eastern area based on TEM results. These survey data and results can contribute to integrated hydrological modeling and water cycle analysis to improve a full–picture understanding of the water cycle at the Maqu catchment in the YRSR. The raw data set is freely available at https://doi.org/10.17026/dans-z6t-zpn7 (Li et al., 2020a), and the data set containing the processed ERT, MRS, and TEM data is available at the National Tibetan Plateau Data Center with the link https://doi.org/10.11888/Hydro.tpdc.271221 (Li et al., 2020b).

5 Data availability

The raw dataset is archived and freely available in the DANS repository under the link https://doi.org/10.17026/dans-z6t-zpn7 (Li et al., 2020a), and the data set containing the processed ERT, MRS, and TEM data is available at the National Tibetan Plateau Data Center with the link https://doi.org/10.11888/Hydro.tpdc.271221 (Li et al., 2020b).