

Dear Editor,

We are submitting our revised manuscript essd-2021-273 “Integrated hydrogeological and hydrogeochemical dataset of an alpine catchment in the northern Qinghai-Tibet Plateau” to your prestigious journal.

We would like to thank you for your valuable comments, which have improved the presentation and quality of this work. We have revised our manuscript according to your comments. A point-by-point response to each of the comments is also provided in the reply letter.

We hope that you find this revised manuscript is suitable for publication in your journal.

Thank you very much for handling our manuscript.

Sincerely,

Rui Ma on behalf of all authors

---

#### **Response to Comments:**

1) The title seems too long and consists of too much information. A complex title could also confuse the audience. I would suggest the authors to consider shortening it to highlight only the key summary of the dataset.

**Response:** We shortened the previous title to “ Integrated hydrogeological and hydrogeochemical dataset of an alpine catchment in the northern Qinghai-Tibet Plateau” in the revised manuscript.

2) The letter "S" was labeled in many of the figures. I suppose it was pointing the south direction. Please clarify it in the captions.

**Response:** To address this comment, we have clarified the letter "S" in the captions of the figures, as shown in Figure 1 and Figure 2.

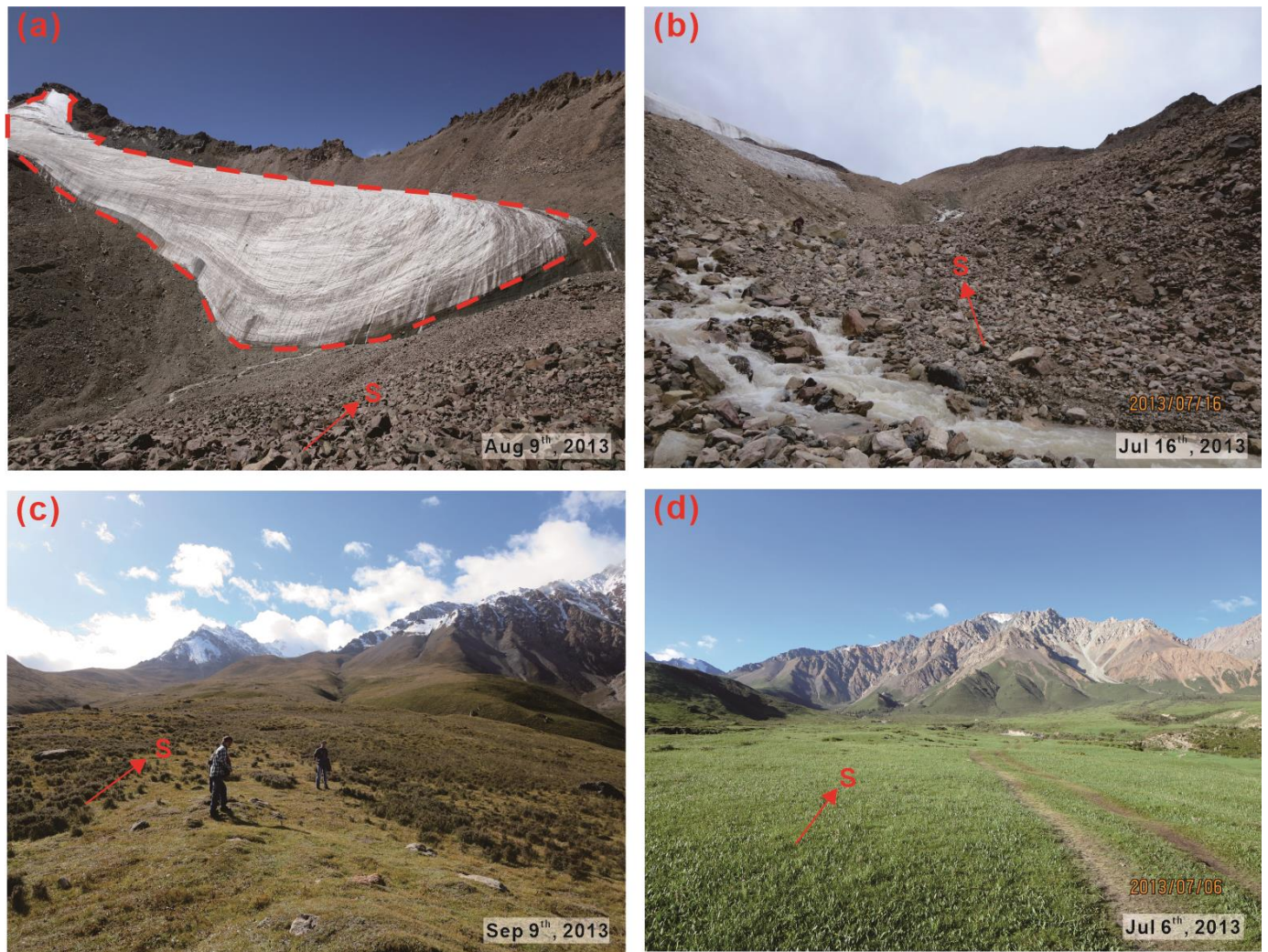


Figure 1. Pictures showing (a) the glaciers in the south part of the study area, (b) the moraine sediments in the periglacial zone, (c) the planation surface in the permafrost zone, and (d) the piedmont alluvial plain in the seasonal frost zone. The letter "S" denotes the south direction.



### (a) The layout of the well groups

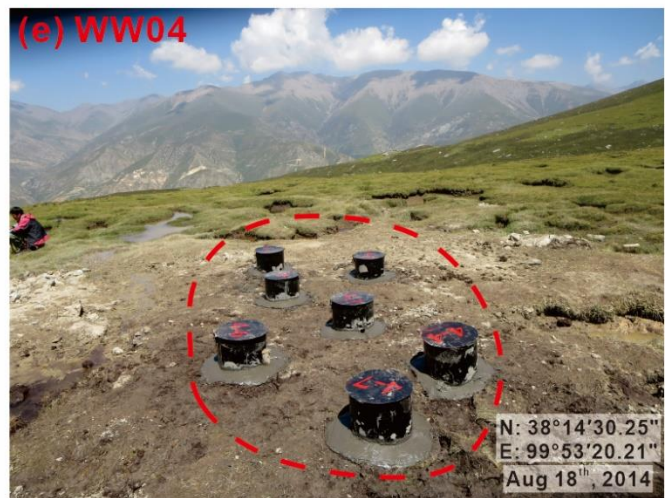
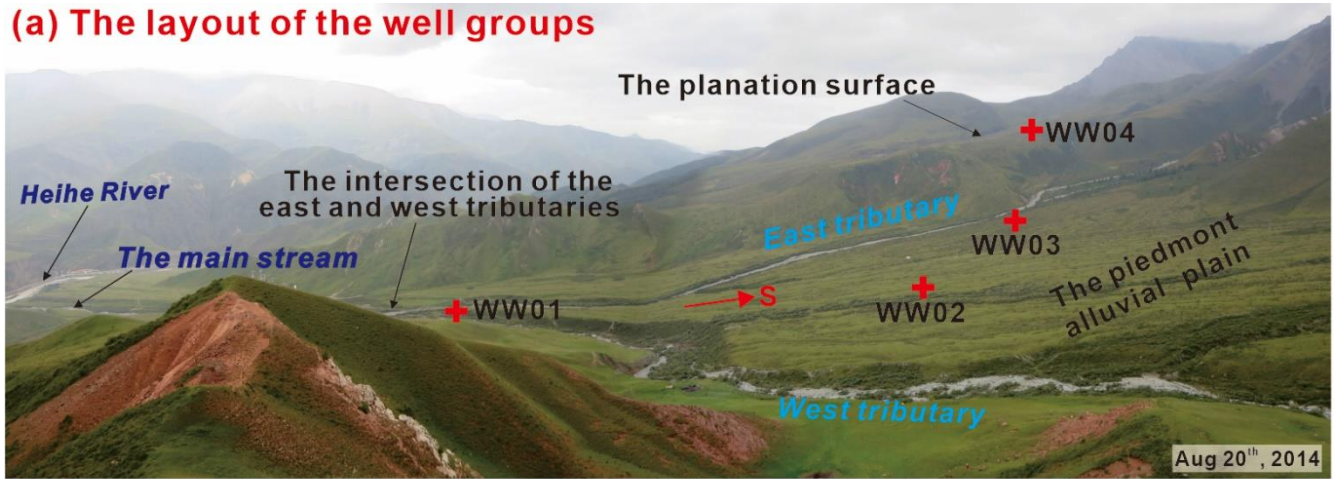


Figure 2. Pictures showing the field scenes for (a) the location and layout of the four well groups in the study area, (b) the layout of wells in the well group WW01, (c) the layout of wells in the well group WW02, (d) the layout of wells in the well group WW03, and (e) the layout of wells in the well group WW04. The letter "S" denotes the south direction.



3) If it is possible, I would encourage the authors to disclose the location and date of the photos shown in the figures.

Response: We have added the location and date of photos, as shown in Figure 1, Figure 2, and Figure 3 below.



Figure 3. Pictures showing procedures for sampling (a) river water , (b) glacier meltwater, (c) spring water, and (d) groundwater in the field. Devices for collecting snow meltwater and precipitation were shown in (e) and (f), respectively.