

Geochronology Discuss., author comment AC2
<https://doi.org/10.5194/gchron-2021-18-AC2>, 2021
© Author(s) 2021. This work is distributed under
the Creative Commons Attribution 4.0 License.

Reply on RC2

Lauren J. Davies et al.

Author comment on "Late Holocene cryptotephra and a provisional 15□000-year Bayesian age model for Cascade Lake, Alaska" by Lauren J. Davies et al., Geochronology Discuss., <https://doi.org/10.5194/gchron-2021-18-AC2>, 2021

We would like to thank the anonymous Reviewer 2 for their comprehensive review of our manuscript and their positive comments. We agree with and will incorporate their editorial suggestions, and have highlighted responses to the three main points they raised:

1. *"The methods conducted by the authors is definitive though additional detail could be added to some sections to allow clear reproduction of certain processes and provide additional information as to why a certain process were chosen. ... The discussion section brings together all the important points in a concise format. Additional information and references would provide further context for the reader to understand the points made"*

More details and references will be added to the methods and discussion sections as suggested in RC2's editorial comments.

2. *"For each cryptotephra layer discussed in the remainder of this section - It would be advantageous to include additional information on glass shard morphology and size for every tephra cryptotephra layer discussed in this section ... This would further emphasise the point that these peaks are homogenous and are primary (if being similar in size and morphology) as well as help with the correlation to which eruption."*

"Closely space eruptions are not the only reason for this type of shard concentration profile. The possibility of taphonomic processes e.g. reworking, bioturbation are also a possibility. This needs to be emphasised here in a short sentence before the detailed discussion in the next session."

Shard morphology and size data will be added, as also mentioned by RC1. Reference will be made to other potential causes of heterogenous shard deposits, although it should be noted that there are no additional data that can be used here to discuss taphonomic processes such as bioturbation or secondary inwash at Cascade Lake specifically.

3. *"It is also typical within tephra papers that geochemical data is presented as normalised within the main paper and non-normalised within supplementary material."*

Raw geochemical data will be added to the SI tables, as commented on by RC1& RC2.