

## Author Response

### Review Manuscript EGUSPHERE-2022-1296

Dear Mr De Rydt,

Thank you for your response. We are glad that you agree that our suggestions improved the manuscript.

We implemented the changes as stated in our responses to the reviewers and took into consideration the additional comments from your response:

1. We included the work by Gwyhter et al. (2020) in our discussion.
2. We added the figure and text about the comparison of our results to the 1-D plume model as an additional result in the manuscript with adjusted labels, legend and caption.
3. We added a figure showing the profiles used for the initial and boundary condition for selected experiments (not all, for better visibility) to Section 2 of the manuscript (Figure 2).

We uploaded the revised manuscript and a second document tracking all changes in the text.

Best Regards,  
Jonathan Wiskandt - on behalf of the authors