

## ***Interactive comment on “Submarine groundwater discharge site in the First Salpausselkä ice-marginal formation, south Finland” by J. J. Virtasalo et al.***

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Dear Editor, dear authors,

this is an interesting manuscript, based on a combination of sedimentological, seismic, GPR and geochemical data. The topic is appropriate for Solid Earth and interesting for a broader readership. In general, the manuscript is well written and the interpretations are scientifically sound. However, the manuscript needs improvement regarding the description and interpretation of depositional systems. The used terminology for the depositional systems is partly confusing. To me it remains unclear, if we are dealing with ice-contact deltas or subaqueous ice-contact fans. May be it is not possible

to distinguish between these two systems. Then this should be clearly stated. The sedimentology partly seems to be overinterpreted – unless you have core data, which have not been described. The term "glaciofluvial" is confusing and should be avoided. Instead it would be better to use "meltwater" for the feeder systems. Also the terms "foreset" and "drift" should be avoided (see comments on the annotated manuscript). The reflector pattern of GPR and seismic lines should be described both in flow and across flow direction.

In the discussion it should be briefly addressed why the pockmarks have not been caused by gas. For more specific comments / suggestions see the attached annotated manuscript.

Jutta Winsemann

Please also note the supplement to this comment:

<https://www.solid-earth-discuss.net/se-2018-131/se-2018-131-RC1-supplement.pdf>

Interactive comment on Solid Earth Discuss., <https://doi.org/10.5194/se-2018-131>, 2018.

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Discussion paper

