

## ***Interactive comment on “Temporal and spatial mediated changes in subsurface microbial community assemblages and functions” by Madison C. Davis***

### **Anonymous Referee #1**

Received and published: 30 July 2020

This study “Temporal and spatial mediated changes in subsurface microbial community assemblages and functions” combined geochemical measurements and molecular analyses to relate microbial community assemblages and functions with environmental parameters. I find this manuscript certainly interesting, but the presentation and interpretation of data needs to be significantly improved. The presented data is thin to some extent. The current results and discussion are more like a report rather than a research article. The same author published one paper of similar study in journal Water in 2018 [https://www.mdpi.com/2073-4441/10/8/972?type=check\\_update&version=1](https://www.mdpi.com/2073-4441/10/8/972?type=check_update&version=1), which was better presented than the current one.

C1

What are the compositions of microbial communities in different zones?

Fig. 2 I would compare microbial community of different zones in one graph rather than in 5 separate graphs

Tab.2 Many microbes can conduct multiple functions, for examples, one can be Sulfur oxidizer, Nitrogen reducer or Iron reducer at the same time, how did you manage to separate them out?

---

Interactive comment on Biogeosciences Discuss., <https://doi.org/10.5194/bg-2020-238>, 2020.

C2