Solid Earth Discuss.,
https://doi.org/10.5194/se-2020-20-EC2, 2020

Solid Earth Discussions

Interactive comment on "Geologic characterization of nonconformities using outcrop and whole-rock core analogues: hydrologic implications for injection-induced seismicity" *by* Elizabeth S. Petrie et al.

Roger Soliva (Editor)

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Received and published: 5 May 2020

Dear authors,

We have now the feedback from the reviwers. They both suggest major revision and I give you here a synthesis of the main points to consider to guide and facilitate your revision work and your answers.

1 - Introduction: As mentioned by R3, add a specific statement of a claim(s) of the paper, explicitely mentioning what you show exactly in this paper that help to improve

the knowledge of this topic. Also justify at the end of the introduction why you chose these examples, and especially why they are relevant to fluid injection operations as mentioned by R2.

2 - Reorganize the paper and especially add a section on local geology descriptions for each sites, which is mentionned by both reviewers. Also consider if it would be better to place the numerical modelling part in the result section as suggested by R1.

3 - Better synthesize, hierarchize and organize your observations (avoid listings) as suggested by R1. Highlight the most important observations that are used in the interpretations and better consider them in an applied or global sense in the discussion section.

4 - Better illustrate the fractures, veins and faults with photographs and add more precise descriptions (quantitative if possible) with relevant terminology as mentionned by R2 and R3.

5 - Give more information about the lateral variability of the non-conformities as suggested by R2.

6 - Avoid speculation about fluid circulation and diagenesis in the discussion section as mentionned by R3. Intergrate the relevant literature to give support to these interpretations.

Each reviewer also did a number of specific comments referring to line numbering that merit consideration in your reply.

Thank you in adavance for thoroughly considering and replying to each of these points and to provide an improved version of the manuscript.

Best regards, Roger Soliva

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