

Interactive comment on "Flow dynamics in hyper-saline aquifers: hydro-geophysical monitoring and modelling" by K. Haaken et al.

Anonymous Referee #1

Received and published: 13 October 2016

This paper deals with the applicatin of cross-hole ERT to monitor a freshwater injection experiment in a highly saline aquifer. A nuemerical model of plume migration and its comparison with the ERT results are also presented. The paper is well written and clear, although some figures could be enlarged and improved (see below) to help the reader.

Minor comments

Improve quality of figure 3

Line 235 Cumulated sensistivity, how to choose the limit

Figure 5 Especify that is shown only after 5 m depth and why

Figure 6 show also the image for the plane 1-5-3 to see if there are 3D structures or

C1

anysotropy in the area

Figure 7 Show the posisition of injection chamber. Make the figure bigger It is clear from the figure that there sgould be some 3D effects or anisotropy.

Line 370. I do not understand which is the fine material. It is the clayley or the clay-silt-sand in figure 2? I think that you refer to the last one, but could you made this more clear in the test? There are not any evidences of this layer in the initial electrical model.

Figures 10 and 11. Please make them bigger and mark the location of the injection chamber as well the fine material.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., doi:10.5194/hess-2016-450, 2016.