

Interactive comment on “Evolution of rheologically heterogeneous salt structures: a case study from the northeast of the Netherlands” by A. F. Raith et al.

Anonymous Referee #2

Received and published: 11 August 2015

General: An excellent and well-presented demonstration of some of the effects of different evaporite rheologies on deformation of a mixed salt sequence using modern industrial 3-D seismic data. I guess this will become a classic reference.

I have no significant criticisms, only admiration. However, the English could be improved in two sections and I sprinkle a few specific suggestions for clarifying the geology throughout (as in the list below)

Line 16: rock salt: rock salt (taken here to consist mainly of halite (NaCl))

Line 28: bitterns to bittern brines

C980

Figure 1 does not really show how the Groningen High fits into the North Sea- but fits the description. The first paragraph of Geological setting is wondrous.

Fig. 3 top and bottom diagrams reversed relative to caption

P. 1883, Line26. Two density stratified (?) OR with stale density stratification(?).

Data and methods: a bit rough

P. 1884, line16, are publically available on the. . .

Results

Figure 5. The seven scaling keys are too small to read in this version. EITHER replace all seven by a single much larger scaling key OR write about warm colours being thin and cold colours thick(?) in the caption.

Page 1886. Line20: change harmonic to in harmony with.

Line 26if this polygonal pattern is on the scale of each dome please say so. If it is smaller g Indicate approxmate scale or wavelength.

Page 1887. Lines 1+2, hard and soft to strong/stiff to weak?

Page 1890, line 19. Add downslope and upslope movement where relevant?

Figure 8:I cannot see labels a,b, or c.

Page 1891: line 6 which don't show: without

Evolution of the internal structure of the salt= Improve English throughout e.g.

Page 1892: line 4. would have= had

Line 8: and to in or by?

Line 10: is not thinning= does not thin

Page 1893, lines 3-6: Separate into 2 sentences.

C981

lines 8-10: Separate into 2 sentences.

Figure 8 is good but could be improved (by more annotation?) Clarify that white spots indicate local deposition.

Please also note the supplement to this comment:

<http://www.solid-earth-discuss.net/7/C980/2015/sed-7-C980-2015-supplement.pdf>

Interactive comment on Solid Earth Discuss., 7, 1877, 2015.

C982