**Detailed response to the associate editor:**

We thank M. Jolivet, the associate editor, for the review and helpful comments. We have made the final changes accordingly in the revised version of the manuscript. Our changes are listed next to the points raised in bold font. All the changes in the text are highlighted by the blue underlining and red strikeout lines.

1. “*I have read in details the new version of your work and I would like to thank you for answering most of the comments made by the reviewers on the previous version. However, I still find that you should be more cautious with the assumption that Lake Azuey and Lake Enriquillo once formed a unique water body. I agree that both lakes could have been connected but the arguments you propose are weak: both seismic lines are running from the northern edge of the basin towards the center. In that respect, I suggest you do not present the Chirp lines the way you do it on figure 6B, giving the impression that they could be connected. I would rather flip line L19 and present the two lines one below the other, in parallel. Finally, on Fig 6A, line B6 seems shorter than line L19 which, if the horizontal scale is identical as indicated, is the opposite on Fig. 6B. Was line B6 cut on Fig. 6B or is the scaling wrong? In both cases this is important for your discussion. Back to your arguments, I would expect sediment input and depositional facies to be strongly similar along the whole ridge (except for some facies variations due to the varying distance to the axes of the river channels). The thickness of the deposits must be mainly controlled by the preservation rates, i.e. by the subsidence in the basin which should also be very similar along the whole ridge. Finally, I guess that the marine incursion in both lakes would require only a very small sea level rise or basin subsidence given the very low topography between the two major anticlines separating the lakes. Since you have no age constraint on the sediment series and thus no indication on the sedimentation/preservation rates in both lakes through time, I would remain very cautious in saying that both lakes were once a single water body and on the use of that assumption in estimating the age and offset of the EPG Fault Zone. Please make sure this is clearly indicated to the readers in the text.*”

**We have made the change on Figure 6A accordingly. In addition, we removed the statement about the two lakes were once a unique water body, both from the figure caption and the main text. To be clear, we cite the previous works that the lakes were the results of the closing of former marine strait, and merged together during heavy rainfall years. In addition, we state that “the hypothesis remains speculative pending more coring in Lake Azuey”. All these changes have been highlighted in main text between line 422 – 430 (change-tracked version) or line 417 – 425 (clean version).**

1. *“Fig 3A: the scale is not 1:1 as stated. Please revise.”*

**We correct the scale of the Figure 3A accordingly.**