Interactive comment on "**Basin inversion and structural architecture as constraints on fluid flow and Pb-Zn mineralisation in the Paleo-Mesoproterozoic sedimentary sequences of northern Australia**" *by* **George M. Gibson and Sally Edwards**

Alan Collins (Referee)

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This paper is an excellent contribution to the understanding of the geological evolution of NE Australia (Isa Province) and the relative interplay of sedimentation and tectonics in the Palaeoproterozoic to Mesoproterozoic. The paper presents new interpretations on large seismic lines and the interpretations are well linked into the geology of the region. I would like to have seen a better link the McArthur Basin geology to increase

the importance of this study across much of northern Australia. But perhaps this is not the focus of this study. Because of this, I think that the authors should refer more to this being a study of the Isa Province, or NE Australia rather than claiming that it spans northern Australia. I also query some of the interpretations of the seismic, but this may be due to the poor reproductions of the lines presented here. On the whole, the figures need improving to the quality expected in a journal such as this. These points are easily addressed and I would recommend publication after addressing these minor points and the number of points on the annotated manuscript. cheers Alan Collins

Please also note the supplement to this comment:
https://www.solid-earth-discuss.net/se-2020-31/se-2020-31-RC1-supplement.pdf