

***Interactive comment on “A study of synthetic
¹³CH₄ retrievals from TROPOMI and Sentinel
5/UVNS Part 1: non scattering atmosphere” by
Edward Malina et al.***

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Further to our initial response, upon further reviews we have been convinced that a requirement of 10 per mil is too large to be of any significant benefit to the modelling or instrument communities. Based on the recommendations of one of the reviewers, we have increased our requirements to 1 per mil. Nisbet et al (2016) show that inter annual variations of d13C can be as much as 1 per mil, and we hope that this could be captured with a total column uncertainty of 1 per mil.

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Warwick, N. J., Cain, M., Brownlow, R., Zazzeri, G., Lanoisellé, M., Manning, A. C., Gloor, E., Worthy, D. E. J., Brunke, E.-G., Labuschagne, C., Wolff, E. W., and Ganesan, A. L.: Rising atmospheric methane: 2007-2014 growth and isotopic shift, *Global Biogeochemical Cycles*, 30, 1356–1370, <https://doi.org/10.1002/2016GB005406>, 2016.

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