

On the basis of your reading of the relevant literature, indicate whether the following statements are true or false and, if/when necessary, briefly document/justify your selection.

T Figure 4A in the paper of Osborn *et al.* (2011) shows how methane concentration in drinking-water wells depends on the ratio of C-13 to C-12 in methane.

T: || (2) ← OK

F: ||||| ||||| ||||| || (22) ~

Groundwater
y-axis (OK) ✓
[see Abstract]

x-axis?

Meaning of $\delta^{13}C_{CH_4}$ (‰, VPDB) ⇒ see Ref. 14

⇒ "Classification" based on this (lack of?) dependence!

F The main conclusion of the Osborn *et al.* paper (2011) is based on the finding that the average methane concentration was some 50 times higher in drinking-water samples taken from "active gas-extraction areas" than from "nonextraction sites".

T: 0

F: ||||| ||||| ||||| |||| (24) ✓

see Abstract: 1.1 vs. 19.2 $\frac{mg}{L}$

T/F Given the importance of Figure 4B, it was more appropriate for Osborn *et al.* (2011) to cite a peer-reviewed report by Bernard, rather than Ref. 15.

T: ||||| ||||| ||||| || (21)

F: ||| (3)

cited references

Does it exist?

If not, F! ← OK?

If yes, T!

or "would have been"

T (even if it does not exist)

⇒ Examples of search findings?

T At least one of the citing references of Osborn *et al.* (2011) contains a graph similar to Figure 4A.

T: ||||| ||||| ||||| |||| (24) ✓

F: 0

Examples?

e.g., *EST* 2015, 49, 4765-71 (Fig. 4)