

Associate Editor decision: Publish subject to technical corrections
by Edward Tipper

Comments to the author:

The authors have worked hard to address all the comments, and the result is much improved manuscript. This will make a good contribution and I recommend it for publication subject to some minor technical comments/questions from my side that the authors should consider:

1) Line 180: Are you sure you want to phrase this in this way? Might suggest: Although the citrate-dithionate extraction was performed on all SSA samples, the elemental composition of extracts was only determined for some intervals from Well 1.

I have applied your suggestion.

2) Line 338: This is one of several examples. Please try and adjust all examples. Rather than using phrases such as Fig X shows, or in Fig X we can see, try a phraseology similar to the following: "The concentration of total Fe (as Fe₂O₃) is approximately 10% along the top 4 m while the total Al (Al₂O₃) decreases by about 5%, to approximately 20% (Fig. 3)"

A find with the search term "figure" should help with this.

I have removed every instance of this and did the same for equations and tables.

3) Line 357: Please clarify how the iteratively segmented regression was done

Now reads, "We iteratively applied segmented regression to optimize fit and break points for each SAI profile, using SAI as the dependent variable in the regression analysis and depth as the independent variable (Figure 5). Our iterations tested the number of break points that yielded the highest R². "

4) Line 452L. Delete the space after "front" before the full stop.

Completed.

5) Do you comment on the apparent mobility of Al on Fig 6, relative to Zr? Apologies if I have missed this.

Now reads, "The elemental depletion of Al follows a similar trend as Mg and Fe, with depletion above 1.33 m in Well 1 and above 4.26 m in Well 2."