

Dear Reviewer,

Thank you very much for your constructive comments. Below please find our responses to your comments.

Reviewer 1

Reviewer's comments	Replies
<p>Line 19: Virginie, while it might be obvious to you...your first three sentences have nothing to do with the title. I read these sentences and think here I have a case study....this is not acceptable for SOILS. This is not a critique of you or your co-authors and I think you can re-write this to work.</p> <p>Line 21: Virginie, your title is not specific to mining.....you need a new title or new intro and abstract</p> <p>Line 24: what you should say is can this technique add to sourcing effectiveness ...don't make the paper into a case study but rather drive it towards the basic science which will result in more citations and move our science forward!</p> <p>Line 42: Can you bring this result back to the big picture? What does this do to advance our science and then our result.</p>	<p>The abstract has been modified in line with these comments. Lines 15-71</p>
<p>Line 28: some call these multiproxy approaches...may seem like semantics but you want to reach your readers.</p>	<p>The terms 'fingerprinting approaches' have been replaced with 'multiproxy approaches' in the revised version of the manuscript.</p>
<p>Line 37: 'colour coupled with geochemical approach' I think you have not introduced this yet?,no?</p>	<p>This approach has been introduced as the third approach in the manuscript. Line 20</p>
<p>Line 263: which model though? A CM-2600d, CM-700d?</p>	<p>This information has been added to the text. Line 291</p>
<p>Line 309: This is vague too.....see the problem I have with interpreting the table of results later in your results section. You just need to be explicit.</p> <p>Table 2: Not clear from the table what factors were run in the Mann Whitney...is it trib vs trib or sediment vs sediment?</p>	<p>We compare the statistical distributions between mining tributary samples versus non-mining tributary samples. This precision has been added to Table 2 and in the revised version of the manuscript. Lines 337-339</p>
<p>Line 313: how...several ways to do this.</p>	<p>This precision has been added. Lines 346-348</p>
<p>Line 512: These 2 sentences seem contradictory</p>	<p>These sentences have been rewritten to avoid any contradiction. Lines 541-543</p>
<p>Line 617: provide them sounds a bit</p>	<p>Done</p>

awkward...try "or goethite have a reddish"	
Line 636: will readers link the nickel ore to laterites?	The terms 'nickel ore' have been replaced with 'laterite profile'.
Line 792: For this journal I would consider this your paper's primary contribution, otherwise you are presenting a case study. I suggest leading with this result. Use your current previous paragraph a the next to show why this approach mattered. This is how your abstract is presented.	The conclusion has been modified to address this comment. Lines 811-841