

Biogeosciences Discuss., referee comment RC1  
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## **Comment on bg-2021-96**

Anonymous Referee #1

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Referee comment on "Hydrothermal trace metal release and microbial metabolism in the northeastern Lau Basin of the South Pacific Ocean" by Natalie R. Cohen et al.,  
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The authors offer a glimpse into trace metal and microbial protein distribution in the Northeast Lau Basin, showing impacts of this basin on transport of important metals into the southern Pacific Ocean basin. Though background microbial populations were similar to the distal plume locations, there were significant increases of differentially expressed proteins belonging to metal transport and chemoautotrophy that were very interesting to detect. The manuscript is incredibly well written and referenced, and I have no comments on what should be corrected except a minor grammatical redundancy (line 27: "comparatively abundant compared"). My expertise is in microbial community/expression analyses, so I do not have the background to review the details of methodology of the trace metal section. I would highly recommend publishing this manuscript as is.