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# Degassing-induced chemical heterogeneity at the 2011–2012 Cordon Caulle eruption

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These supplementary figures accompany the article: Paisley, R., Berlo, K., Whattam., J., Schipper, C. I., and Tuffen, H. (2019) "Degassing-induced chemical heterogeneity at the 2011–2012 Cordon Caulle eruption", *Volcanica*, 2(2), pp. 211–237. doi: [10.30909/vol.02.02.211237](https://doi.org/10.30909/vol.02.02.211237).

## SUPPLEMENTARY FIGURES

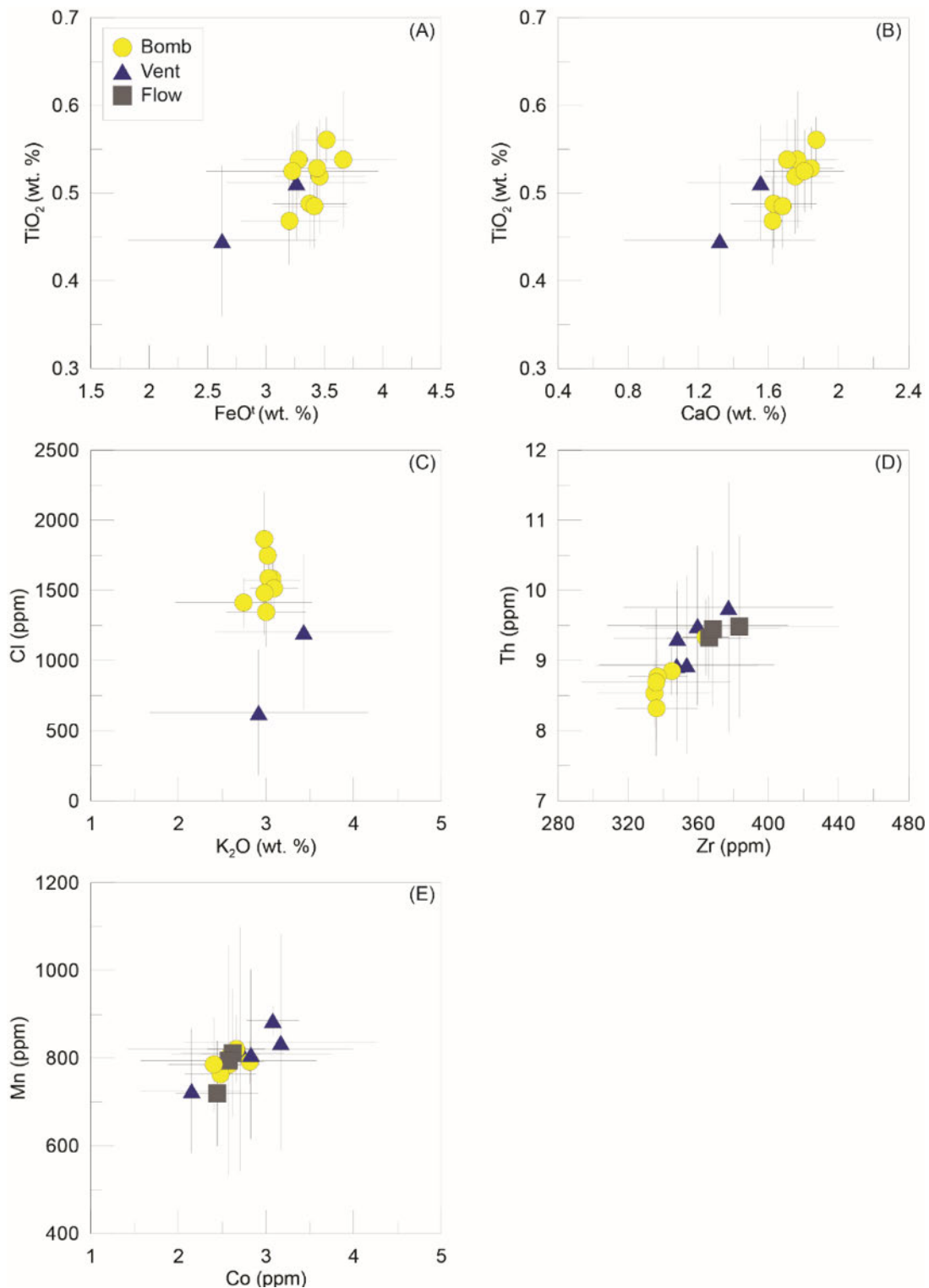


Figure S1:  $\text{FeO}^t$  (A) and  $\text{CaO}$  (B) vs.  $\text{TiO}_2$  highlighting minor positive correlations between certain major elements. (C) No correlation between  $\text{K}_2\text{O}$  vs Cl is observed, Cl concentrations are highly variable whilst  $\text{K}_2\text{O}$  concentrations are approximately constant. Positive correlations are observed between certain Group 1 elements, e.g. Th vs Zr (D) and between Group 2 elements, e.g. Co vs Mn (E). Error bars are 1 standard deviation.

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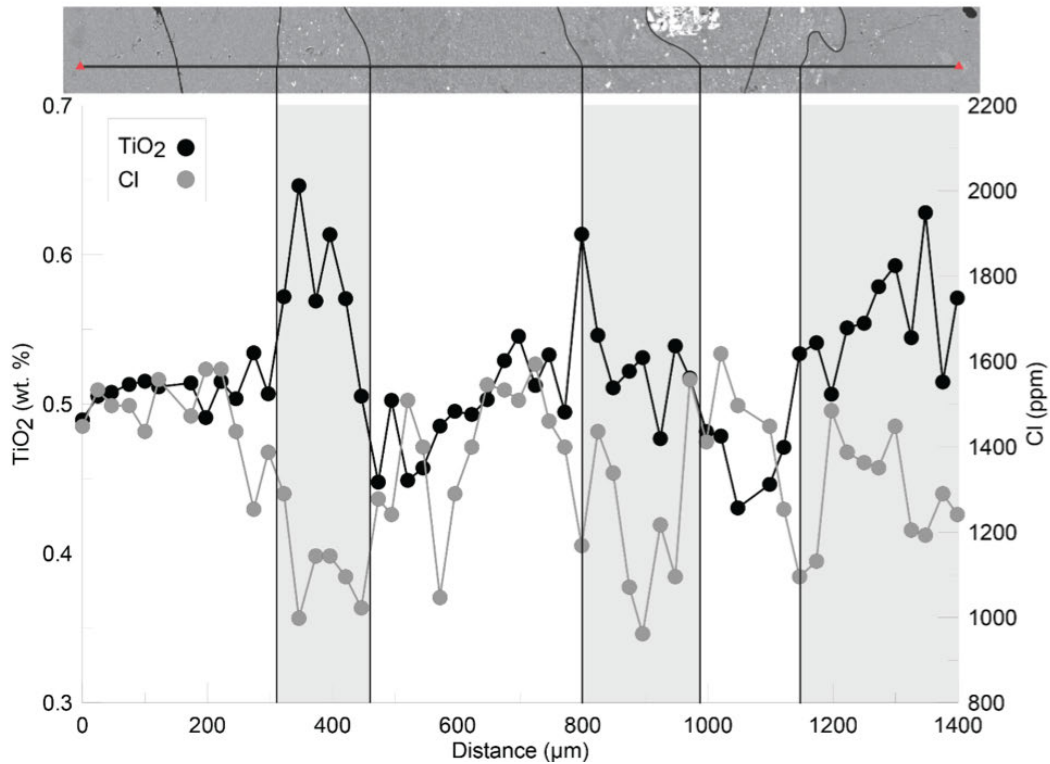


Figure S2: Profile of TiO<sub>2</sub> and Cl concentrations obtained via EPMA across a banded obsidian domain (Sample B4).

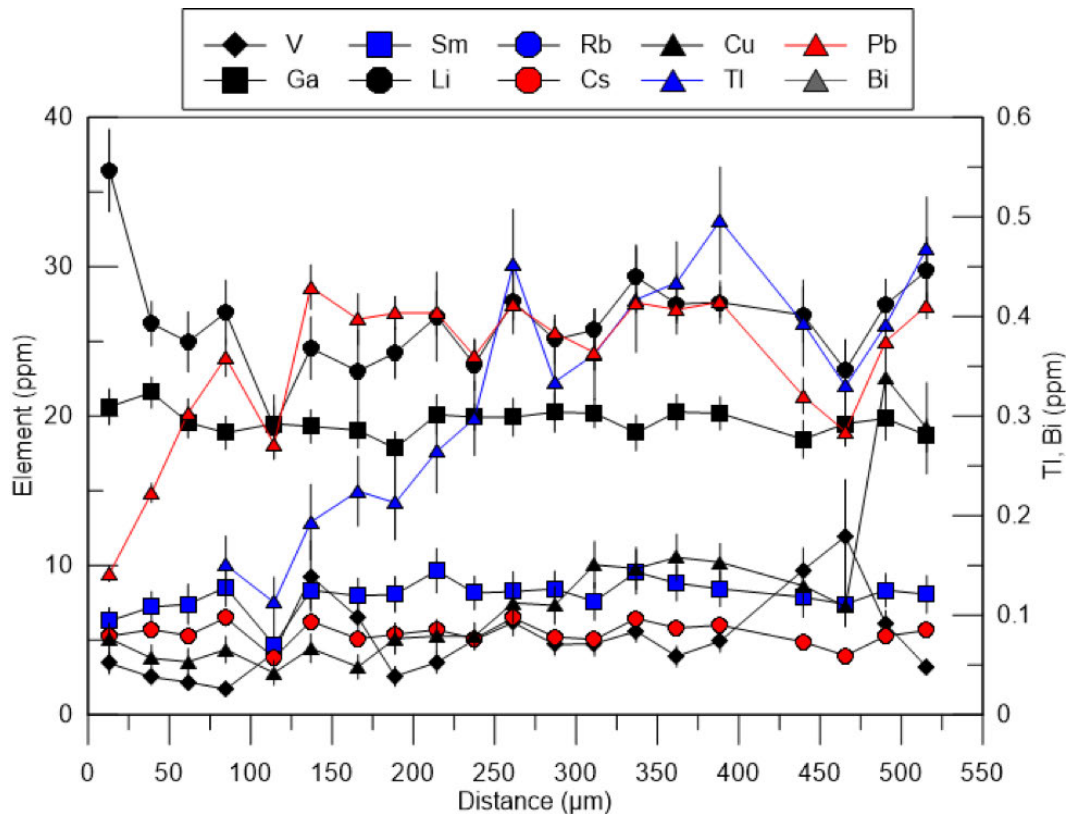


Figure S3: Comparison of variation in Group 1 (e.g. V, diamonds), Group 2 (e.g. Ga, Sm, squares) and Group 3 alkalis (e.g. Li, Rb, Cs, circles) and Group 3 metals (e.g. Cu, Tl, Pb, Bi, triangles) elements away from a fracture surface in a nozzle (Sample V5), corresponding timescales estimated via diffusion of Pb and Tl are shown in Figure 8 in the accompanying article.

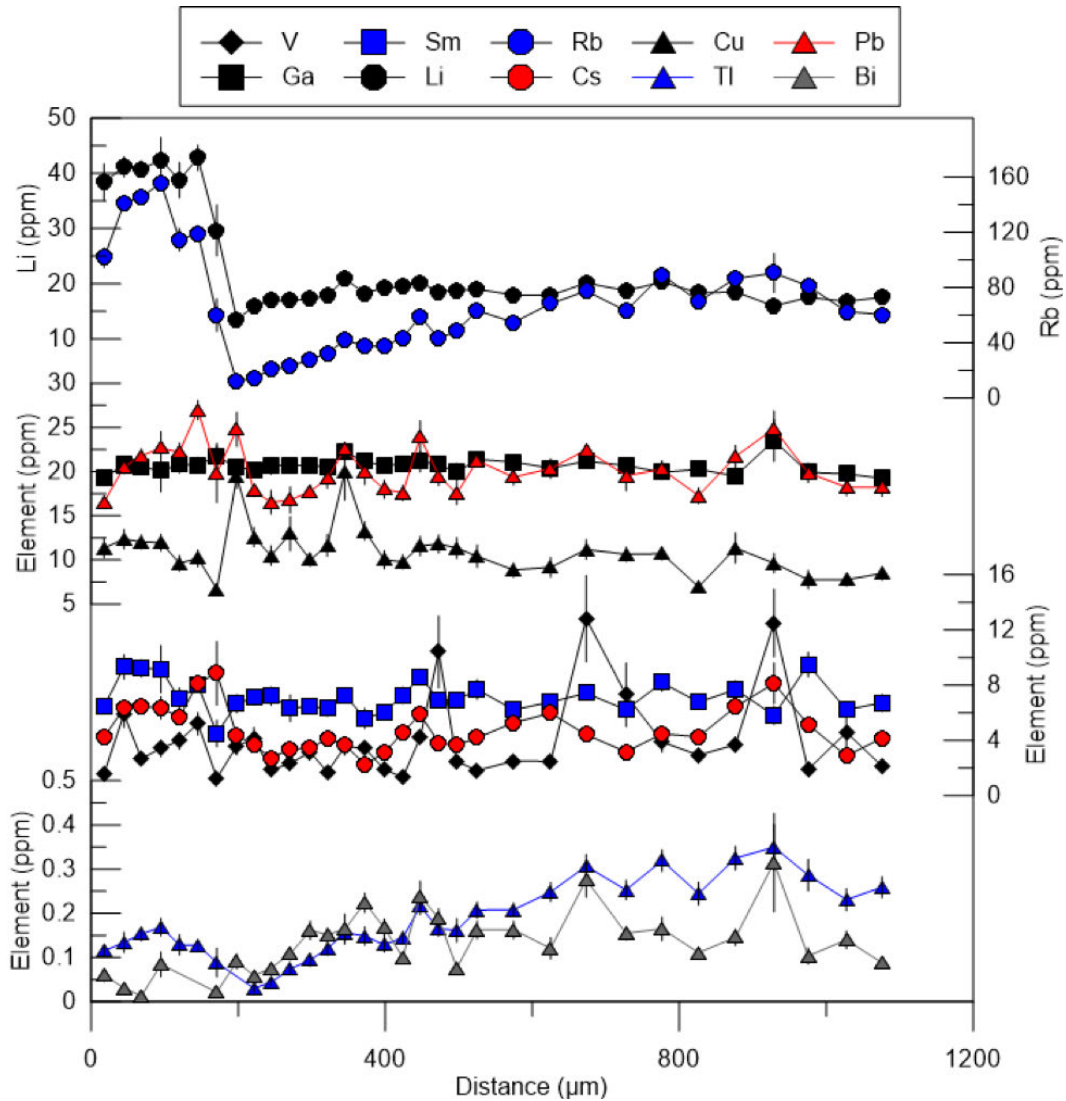


Figure S4: Comparison of variation in Group 1 (diamonds), Group 2 (squares) and Group 3 (circles and triangles) elements away from a matrix-clast interface in a dense clast (Sample V2), corresponding timescales estimated via diffusion of Li, Rb and Tl are shown in Figure 9B in the accompanying article.

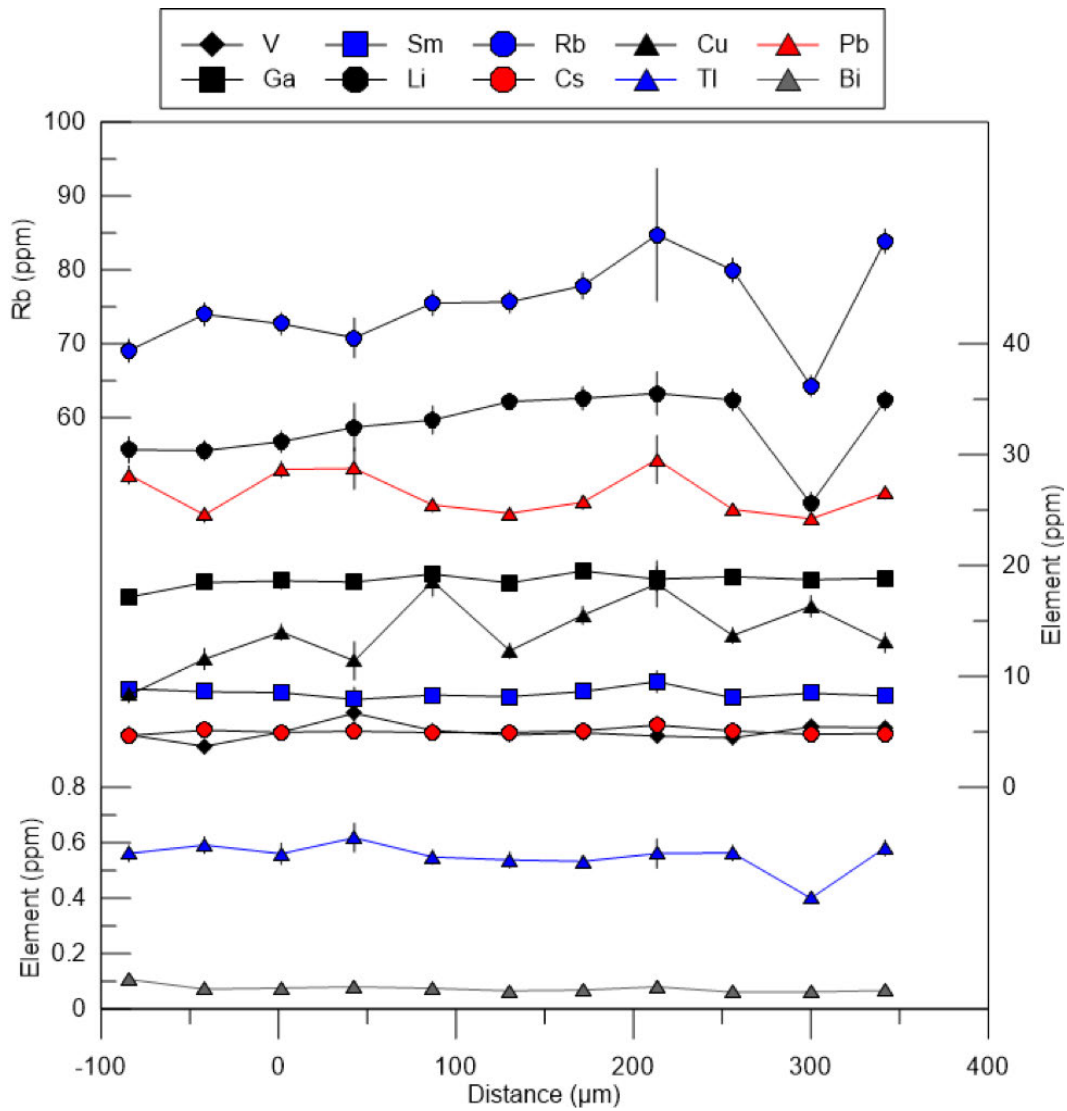


Figure S5: Comparison of variation in Group 1 (diamonds), Group 2 (squares) and Group 3 (circles and triangles) elements in a banded obsidian clast away from the matrix-clast interface in a non-oxidised pumice breccia (Sample B7), corresponding timescales estimated via diffusion of Li and Na are shown in Figure 10 in the accompanying article.

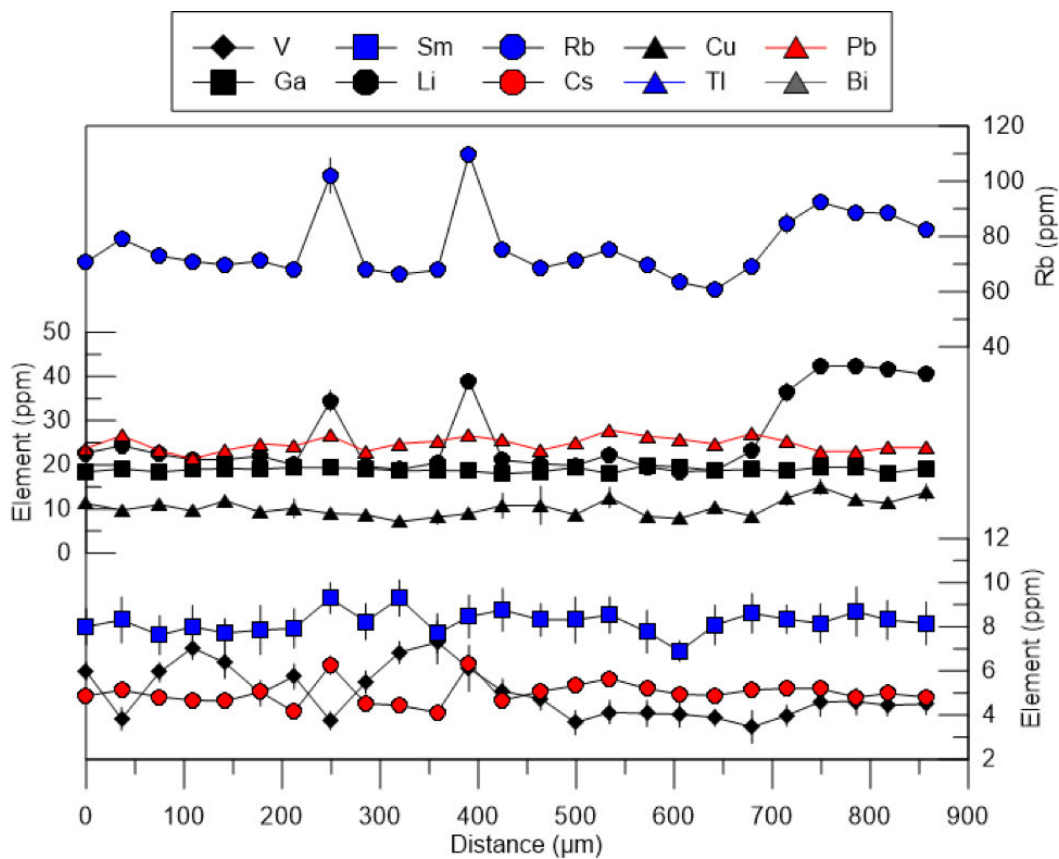


Figure S6: Comparison of variation in Group 1 (diamonds), Group 2 (squares) and Group 3 (circles and triangles) elements across juxtaposing bands in a banded obsidian bomb (Sample B12), corresponding timescales estimated via diffusion of Li and Rb are shown in Figure 11 in the accompanying article.