



THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

Co-Authorship Form

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Please indicate the chapter/section/pages of this thesis that are extracted from a co-authored work and give the title and publication details or details of submission of the co-authored work.

Chapter 2: Geology of the Pirongia Volcano, Waikato: 1:30,000 Geological Map

Nature of contribution
by PhD candidate

Conducted all field mapping and cartography, wrote the book

Extent of contribution
by PhD candidate (%)

95%

CO-AUTHORS

Name	Nature of Contribution
A. Pittari	Fieldwork assistance, discussion, review of drafts
M.B. Brenna	Fieldwork, discussion, review of early draft, general map feedback
R.M. Briggs	Fieldwork, advanced discussion, review of manuscript

Certification by Co-Authors

The undersigned hereby certify that:

- ❖ the above statement correctly reflects the nature and extent of the PhD candidate's contribution to this work, and the nature of the contribution of each of the co-authors; and

Name	Signature	Date
Marco Brenna		30.07.2020
Adrian Pittari		30/07/2020
Roger Briggs		30/07/2020



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Chapter 3: Evidence of mixing between island arc and intraplate basaltic magmas in the Alexandra Volcanic Group, New Zealand

Nature of contribution by PhD candidate

Wrote manuscript, came up with most of the ideas and interpretations

Extent of contribution by PhD candidate (%)

90%

CO-AUTHORS

Name	Nature of Contribution
M.B. Brenna	Discussion, review of several drafts, field visits, analytical advice
R.M. Briggs	Discussion, contribution of unpublished analyses, review of drafts
A. Pittari	Discussion and review of drafts

Certification by Co-Authors

The undersigned hereby certify that:

- ❖ the above statement correctly reflects the nature and extent of the PhD candidate's contribution to this work, and the nature of the contribution of each of the co-authors; and

Name	Signature	Date
Marco Brenna		30.07.2020
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Chapter 4: A channelised debris avalanche deposit from the Pirongia basaltic stratovolcano, New Zealand

Nature of contribution by PhD candidate

Fieldwork, stratigraphy and fundamental interpretations

Extent of contribution by PhD candidate (%)

95%

CO-AUTHORS

Name	Nature of Contribution
A. Pittari	Fieldwork, discussion and revision of manuscript

Certification by Co-Authors

The undersigned hereby certify that:

- ❖ the above statement correctly reflects the nature and extent of the PhD candidate's contribution to this work, and the nature of the contribution of each of the co-authors; and

Name	Signature	Date
Adrian Pittari		30/07/2020