Lydia Fairhurst, Dalhousie University, Halifax, NS, Canada for her project *Emplacement conditions of class 1 kimberlites as recorded in natural and experimentally produced reaction products on mantle-derived chromite and ilmenite.*

Lydia Fairhurst is a third-year PhD candidate working with Dr. Yana Fedortchouk in the Experimental High Pressure Geological Research Lab at Dalhousie University (Canada). Her research, in collaboration with DeBeers Exploration and Northwest Territories Geological Survey, focuses on utilising reaction products formed on mantle-derived oxide minerals (ilmenite and chromite) to provide information on the melt and volatile composition of kimberlites and their crystallisation and emplacement conditions. Thanks to the generous support of the Lipman Student Research Grant, she is able to fund the completion of piston-cylinder experiments. This is vital to her research since the methodology involves an integrated approach in which she analyses reaction products in natural and experimental samples. Her research on oxides is also economically significant, since the findings will contribute to a better understanding of diamond preservation in kimberlites.

Lydia is originally from the United Kingdom where she did her undergraduate degree (integrated bachelor and masters) at University of Birmingham (UK). This included completion of an independent five-week geological mapping project in Wales and a thesis on the petrology of Carboniferous age basalts and dolerites from the West Midlands (UK). She developed a love for the field aspect of geology during her undergraduate degree, and although her PhD research doesn't involve it directly, she has continued her involvement as a teaching assistant for Dalhousie University’s field school three years running.