

Stress Damage in Borehole and Rock Cores; Developing New Tools to Update the Stress Map of Alberta

Qing Jia¹, Randy Kofman¹, Doug Schmitt¹, and Inga Moeck²

¹*University of Alberta, Edmonton*

²*GFZ, Potsdam*

Abstract

The *in situ* stress field is the most critical factor in rock mechanics. Different *in situ* stresses can lead to different rock fractures in terms of types of fracture, apertures, and so on. Therefore, knowledge of fracture information and elastic properties helps us to infer the magnitude and the orientation of the *in situ* stress field. This study shows how to determine the *in situ* stress field in part of Alberta by using this kind of method.