

**CHARACTERISATION OF THE  
LOWERMOST MANGANESE ORE BED OF THE  
HOTAZEL FORMATION, GLORIA MINE,  
NORTHERN CAPE PROVINCE**

by

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**DISSERTATION**

submitted in fulfillment of the requirements for the degree

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in



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## **Declaration**

I declare that this research work is my own, conducted under supervision of Prof. J. Gutzmer and Prof. N.J. Beukes. No part of this research has been submitted in the past, or is being submitted, for a degree at any other university.

