



BPI for Palaeontological Research

Private Bag 3, WITS 2050, South Africa • Telephone +27 11 717-6682 • Fax +27 11 717-6694
Email: bruce.rubidge@wits.ac.za

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Dr Robert de Jongh
Cultmatrix Heritage Consultants
Box 12013
Queenswood
0121

E-Mail: cultmat@iafrica.com

Dear Robert,

Farm Keboes 37, Upington: Palaeontological impact

As requested, I have undertaken a desk top study to assess the possible affect on palaeontological heritage which will result from the setting up of irrigation farming on the farm Keboes 37 situated south west of Upington.

In my opinion the proposed development will not pose any threat to palaeontological heritage. I propose that the project proceed but should any palaeontological finds be exposed in the course of development then a qualified palaeontologist be contacted to assess what should be done.

Yours sincerely

Professor Bruce Rubidge

KEBOES 37 UPINGTON NORTHERN CAPE PROVINCE: PALAEOLOGICAL IMPACT ASSESSMENT

Introduction

A desk-top study was undertaken to determine that effect on palaeontological heritage which could result from the proposed establishment of irrigation farming on the farm Keboes 37 situated south west of Upington, Northern Cape Province.

Geology of the area to be developed

The entire area of the proposed development is underlain by rocks of the Namaqua-Natal Metamorphic Province which are Precambrian in age. As far as can be ascertained from maps of the development area which were made available to me, the area is underlain by granites and charnokites of the Keimoos Suite as well as smaller outcrops of the Areachap Formation.

Palaeontological Heritage

From current knowledge the Namaqua-Natal Metamorphic Province, which comprises igneous and metamorphic rocks, does not contain any fossils and as these rocks are Precambrian age the only fossils which could be expected at the time of formation would be microfossils. Despite the proximity of the study area to the Orange River, from the 1:250 000 Geological Map (2820 Upington, 1997) there are no Tertiary or Quaternary deposits present in the area to be developed and it is thus unlikely that fossils of Tertiary or Quaternary age are present.

Recommendation

The area affected by the proposed development of an irrigation farm will have no negative impact on paleontological heritage. It is therefore proposed that, from a palaeontological perspective, development should proceed. If, in the unlikely event that Tertiary or Quaternary fossils are encountered in the course of development, a suitably qualified palaeontologist must be contacted to assess the situation.

References

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Professor Bruce Rubidge