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

20 August 2007

Mr Alfonso Niemand
Nature and Business Alliance Africa (Pty) Ltd.

Dear Mr Niemand,

Efumeni Drinking Water Project BID 25 May 07; Efumini Sewage Project BID 19 May 07.

As requested by you on 24 July I have now undertaken and EIA to assess the affect of the water and sewage pipe developments will have on palaeotnological heritage in the Sebokeng area of Vereeniging and include my two reports herewith.

In my opinion these two development will not negatively affect palaeontological heritage in the area affected.

Please come back to me if there is anything you do not understand or are unhappy with in the reports.

Yours sincerely

Professor Bruce Rubidge

PROPOSAL FOR THE INSTALLATION AND OPERATION OF A NEW DRINKING WATER SUPPLY PIPELINE BETWEEN LANGERANT AND STEEL PARK IN VEREENIGING.

Introduction

An EIA was undertaken in the Sebokeng area to determine the affect that the proposed installation of a water pipeline would have on palaeontological heritage in the area. Following the information document (Ref GAUT 002/07-08/N0061 Figure 1) the proposed water pipeline route will extend from the junction of roads R28 and R54 in the south and extend northwards to Houtheuwel. This report covers the area which is to be affected by the water pipeline along both the proposed and alternative routes.

Geology of the route traversed

Most of the traverse route of the water pipeline covers rocks of the Rooihoogte and Timeball Hill formations of the Transvaal Sequence which is Vaalian in age and which is covered by Quaternary soils in places. At the junction of the R54 with Houtklip Road (around 26^0 37.577' S/ 27^0 52.909' E) the area is covered by thick alluvium underlain by Vaalian-aged dolomites of the Transvaal Sequence and Permian-aged rocks of the Vryheid Formation of the Karoo Supergroup. Along Cora Botha Road, the area is also underlain by the Karoo Supergoup, but here too this is covered by a thick be of Alluvium.

Palaeontological Heritage

The only rocks which have a possibility of fossils are those of the Transvaal dolomites and the Karoo rocks, but at the few small places where these rocks are present in the affected area they are covered by a thick layer of soil and it is highly unlikely that excavations for the pipeline will even reach these rock layers.

Conclusion

In my opinion construction of this water pipeline pipeline will not affect any palaeontological heritage and no precautions need to be taken.

Professor Bruce Rubidge

PROPOSAL FOR THE INSTALLATION AND OPERATION OF A NEW SEWAGE PIPELINE FROM KWAGAFONTEIN TO THE LEEUKUIL SEWAGE TREATMENT WORKS.

Introduction

An EIA was undertaken in the Vereeniging area to determine the affect that the proposed installation of a sewage pipeline would have on palaeontological heritage in the area. Following the information document (Ref GAUT 002/07-08/N0060 Figure 1) the proposed sewage pipeline route will extend northwards from the current sewage works until the R54 road. From here it extends northwesterly to end close to the farm Kwaggafontein.

Geology of the route traversed

Within the affected area of Vereeniging township the underlying rocks are of the Permian-aged Vryheid Formation of the Karoo Supergroup. Along the R54 (for the proposed route of the pipeline) and slightly northwards (for the alternative pipeline route), the area is underlain by small areas of Vaalian-aged dolomites of the Transvaal Sequence and Permian-aged rocks of the Vryheid Formation of the Karoo Supergroup. Along the entire southerly section of the route these rocks do not outcrop and are covered by a thick layer of Quaternary alluvium which has already been affected by both urban and agricultural development. Northwest of the junction of the R54 with Houtklip Road (around 26^0 37.577' S/ 27^0 52.909' E) the traverse route of the sewage pipeline, and the sideline covers rocks of the Rooihoogte and Timeball Hill formations of the Transvaal Sequence which is Vaalian in age. These rocks do outcrop but are also covered by Quaternary soils in places.

Palaeontological Heritage

The only rocks which have a possibility of fossils are those of the Transvaal dolomites and the Karoo rocks, but at the few small places where these rocks are present in the affected area they are covered by a thick layer of soil and it is highly unlikely that excavations for the pipeline will even reach these rock layers.

Conclusion

In my opinion construction of this sewage pipeline will not affect any palaeontological heritage and no precautions need to be taken.

Professor Bruce Rubidge