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**FIRST PHASE ARCHAEOLOGICAL & HERITAGE ASSESSMENT OF
THE PROPOSED VAAL-GAMAGARA WATER PIPELINE PROJECT,
NORTHERN CAPE**

HOTAZEL ALTERNATIVE WATER PIPELINE

EXECUTIVE SUMMARY

Sedibeng Water is planning to upgrade the Vaal – Gamagara bulk water scheme line from the pump station at Vaal Gamagara village near Delportshoop on the Vaal River to the reservoir at Black Rock.

The present investigation was done to evaluate the deviation of about 2km that will take the water from the pipeline connection to the Hotazel water reservoir.

The area consists of red sandy soils, with Kalahari Thorn Veld vegetation. The route did not produce any archaeological artefacts or heritage remains.

I recommend that the developments and planning of the pipeline may proceed. No mitigation measures are needed.

INTRODUCTION AND DESCRIPTION

Scope and Limitations

The investigation provided the opportunity to examine the proposed deviation in the pipeline at Hotazel.

No limitations were experienced during the present site visit.

Methodology

1. Standard archaeological survey and recording methods were applied.
2. A survey of the literature was done to obtain information about the history, archaeology and heritage remains of the site.
3. The area along the pipeline route was inspected by vehicle and on foot.
4. The layout of the route was plotted by GPS and transferred on to Google Earth.
5. Surroundings and features were recorded on camera.

INVESTIGATION

Sedibeng Water is planning to upgrade the Vaal – Gamagara bulk water scheme line from the pump station at Vaal Gamagara village near Delportshoop on the Vaal River to the reservoir at Black Rock.

The pipeline will also feed the reservoir at Hotazel.

MDA Environmental and Development Consultants, 9 Barnes Street, Bloemfontein, 9301, Tel. 051-447 1583, administer the Environmental Impact Assessment.

A previous site visit on 27 January 2012 (Dreyer 2012) was followed by an investigation on 5 December 2013. Dr Johan du Preez (082 376 4404) from Eco Care Consultancy, P.O. Box 11945, Universitas 9321, Bloemfontein, accompanied me to the site.

The new water pipeline route at Hotazel was examined for possible archaeological and historical remains and to establish the potential impact on any cultural material that might be found. The Heritage Impact Assessment (HIA) is done in terms of the National Heritage Resources Act (NHRA), (25 of 1999) and under the National Environmental Management Act, 1998 (Act. 108 of 1998).

The study aims to locate and evaluate the significance of heritage sites, archaeological material, manmade structures older than 60 years, and sites associated with oral histories and graves. Different types of plants and trees and in this case the natural vegetation, determine a major part of the environment.

While exhilarating finds were made in the red sand deposits with significant stands of *Erioloba* trees around Kathu, it appears that the geology has changed rapidly in places where the deep red sand deposits transform into hills, which produce rich iron ore accumulations (Dreyer 2010).

No archaeological research had been done at Hotazel and environs. It appear that there are no records of any Stone Age material comparing with the Early Stone Age hand axes as found in the region of Kathu (Beaumont 1990, 2007; Dreyer 2006, 2008, 2010).

LOCALITY

The proposed new water pipeline will run from the pump station at Vaal Gamagara village near Delpoortshoop over a distance of about 350km, to the Sedibeng reservoir at Black Rock. The pipeline route will follow the existing line via Koopmansfontein, Lime Acres, Postmasburg, Lohatla, Olifantshoek, Sishen, Kathu and Hotazel to Black Rock, in the Northern Cape (Map 1&3).

At Hotazel, the proposed new water pipeline will go from the main supply line over a distance of about 2km to the town reservoir (Maps 2,4-6).

The following GPS coordinates (Cape scale) were taken (Map 5&6).

A	27°12'39"S. 022°57'41"E Altitude 1073m (Figs.1&2).
B	27°12'29"S. 022°57'38"E Altitude 1074m (Fig.3).
ESKOM Sub-station	27°12'18"S. 022°57'36"E Altitude 1069m (Fig.4).
C	27°12'07"S. 022°57'01"E Altitude 1067m (Fig.5).
D Hotazel Reservoir	27°11'53"S. 022°56'55"E Altitude 1053m (Fig.6).

RESULTS

FINDS

The land consists of sterile sandy soil on the outskirts of the town. The installation of a sewer system, road building and an electricity network, caused damage to the environment.

No indication of archaeological or any historical material was found at the site.

IMPACT ASSESSMENT

The potential impact by the new pipeline installation on the heritage resources of the route is of minor significance and no mitigation measures will be needed.

RECOMMENDATIONS

Because of the fact that the new water pipeline will be installed within the same trench with the existing pipeline, there are no obvious reasons to delay the commencement or further planning and development of the pipeline.

I recommend that the proposed new developments may proceed.

MITIGATION

No mitigation measures will be required.

ACKNOWLEDGEMENTS

I thank Dr Johan du Preez from MDA Environmental Consultants, Bloemfontein, for taking me to the site.

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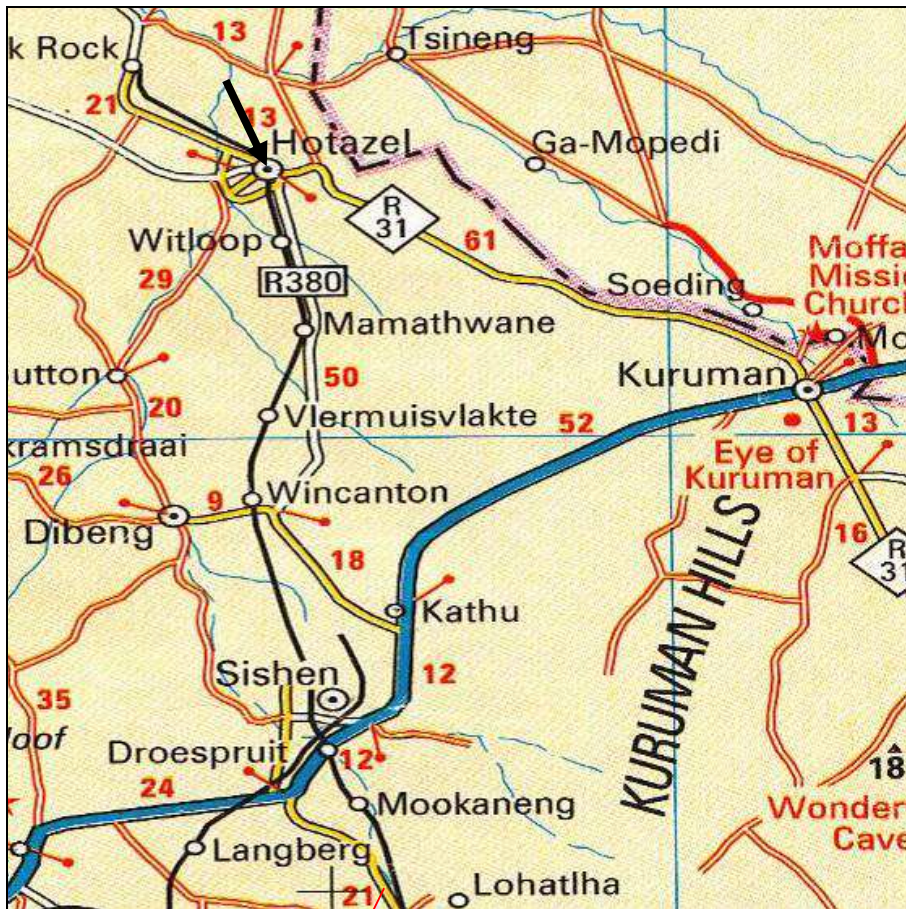
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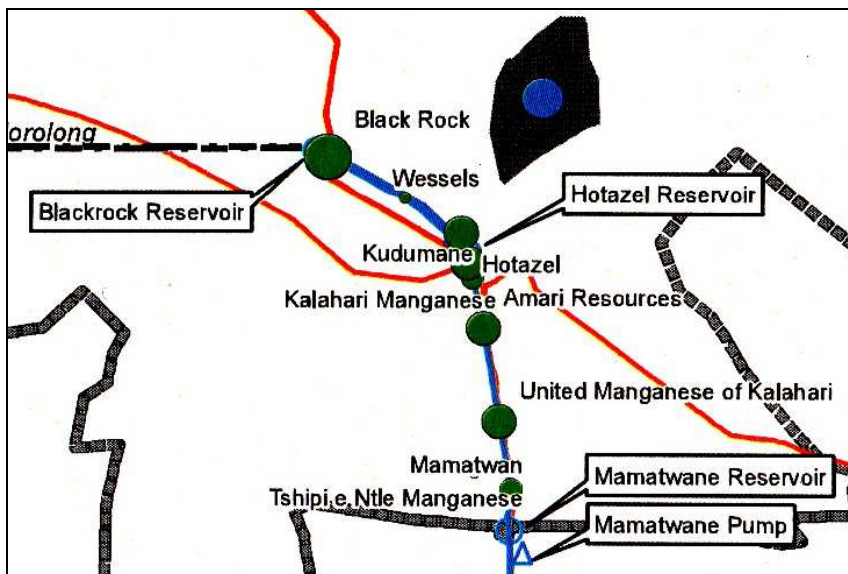
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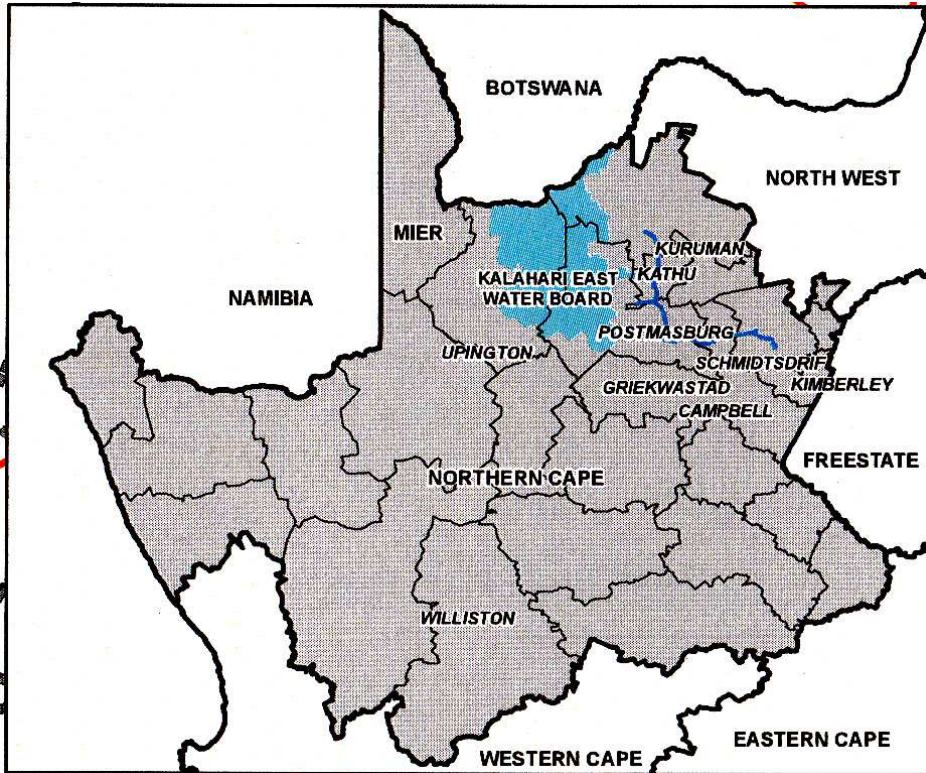
LIST OF ILLUSTRATIONS



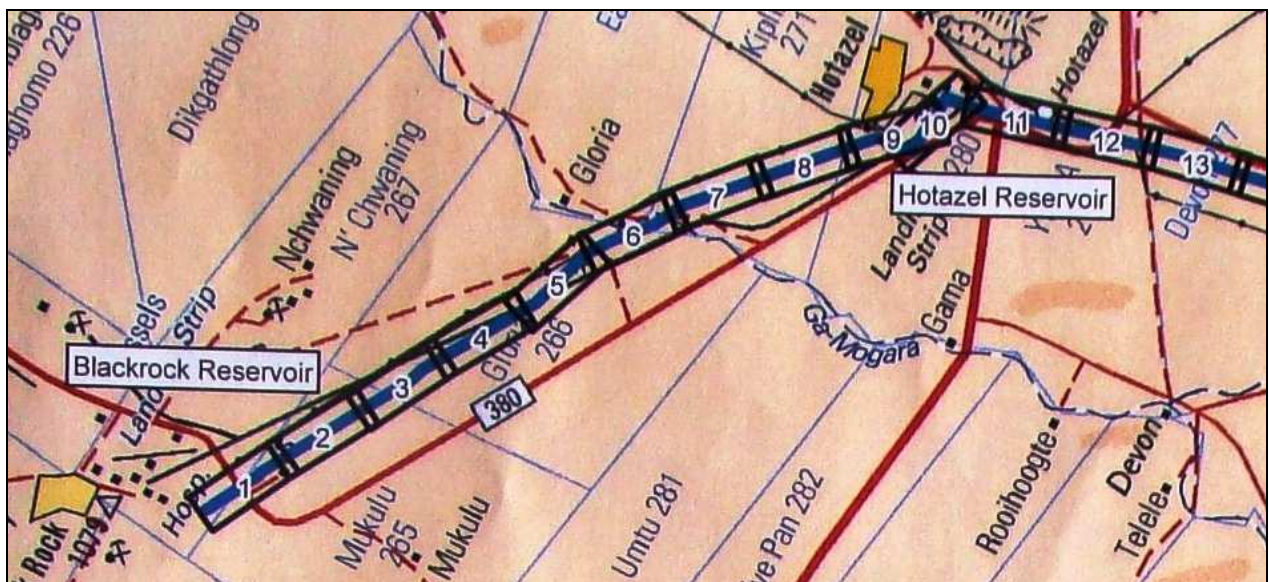
Map 1 Vaal-Gamagara pipeline route from Riverton to Beeshoek & Postmasburg.



Map 2 Vaal-Gamagara pipeline Hotazel to Black Rock.



Map 3 Jurisdiction of the Kalahari East Water Board, Northern Cape.



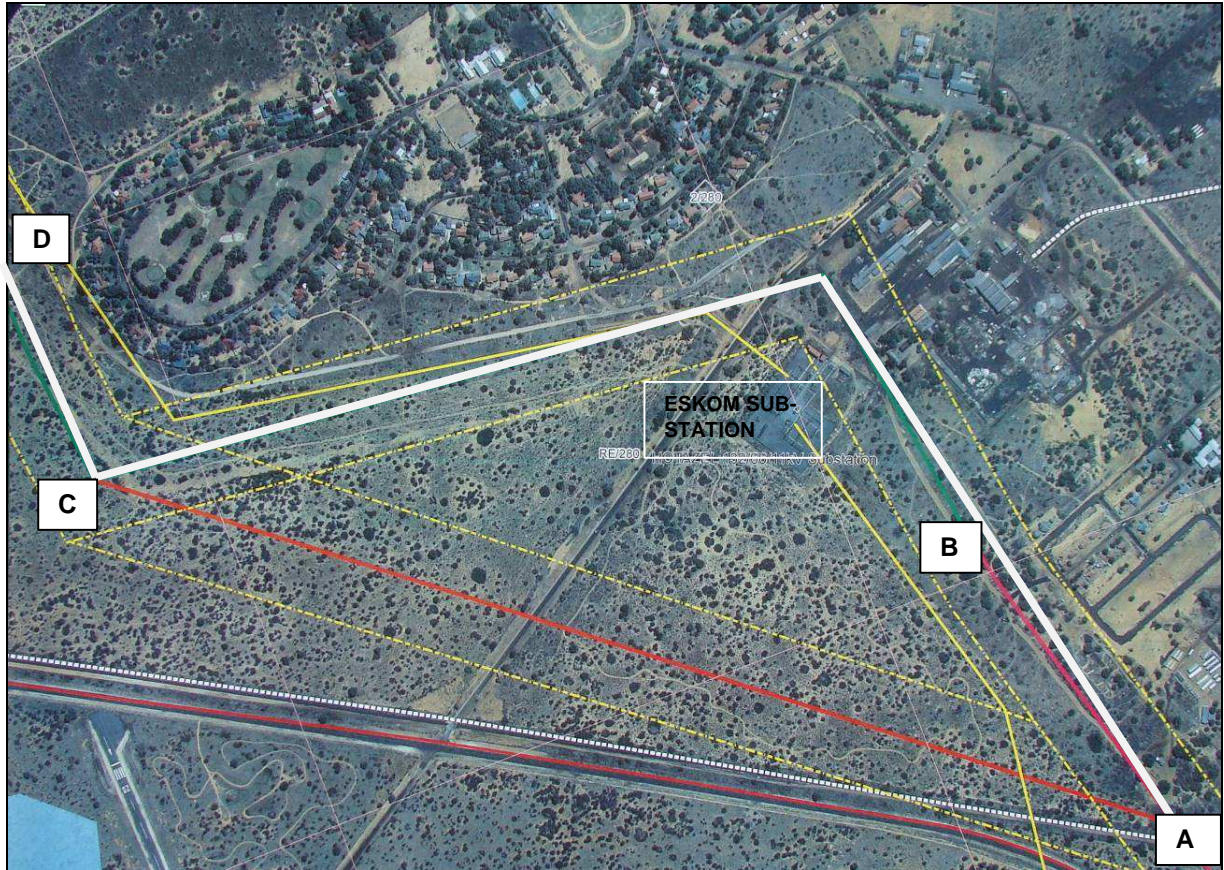
Map 4 The Vaal-Gamagara Hotazel to Black Rock pipeline route.



Map 5 Vaal-Gamagara pipeline route at Hoazel. Coordinate points indicated.



Fig.1 Point A at Hoazel new water pipeline route.



Map 6 Vaal-Gamagara new pipeline route at Hotazel. Coordinate points indicated.



Fig.2 Point A at Hotazel new water pipeline route.



Fig.3 Point B at Hotazel new water pipeline route.



Fig.4 Eskom Sub-station at Hotazel new water pipeline route.

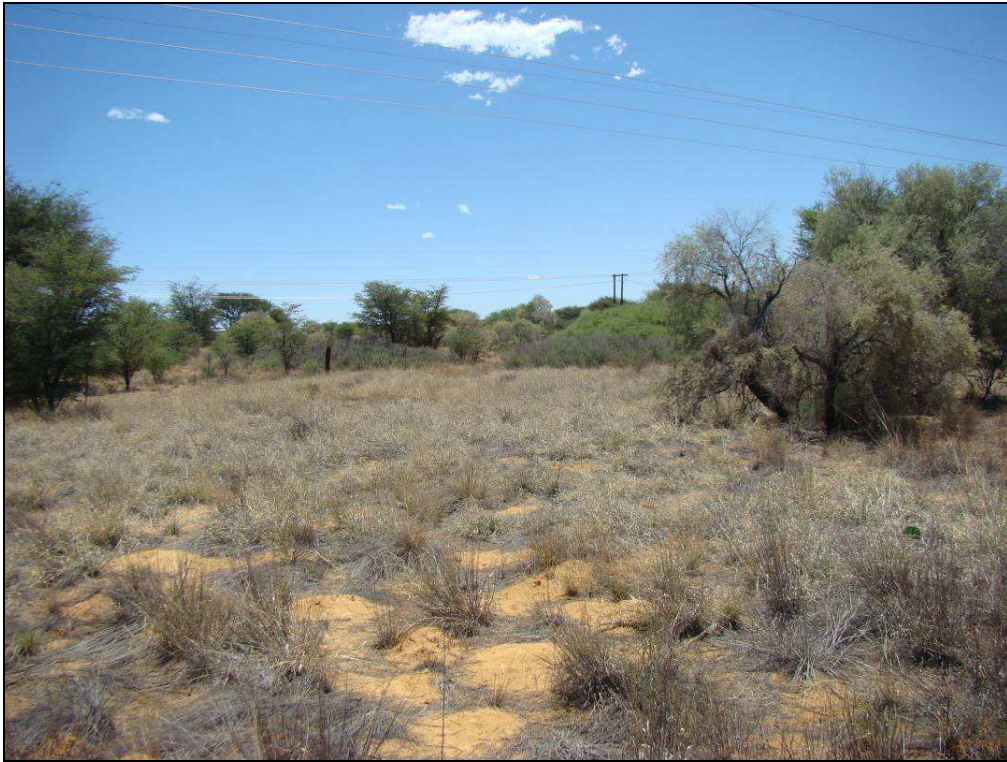


Fig.5 Point C at Hotazel new water pipeline route.



Fig.6 Water reservoir at Point D, Hotazel.