

**A LETTER OF RECOMMENDATION (WITH CONDITIONS) FOR THE EXEMPTION  
OF A FULL PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT FOR THE  
PROPOSED CONSTRUCTION OF A FOUR KILOMETRES WATER PIPELINE TO  
UPGRADE THE EXISTING INFRASTRUCTURE, GRAAFF-REINET, CAMDEBOO  
MUNICIPALITY, EASTERN CAPE PROVINCE**

**Prepared for:** CEN Integrated Environmental Management Unit

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**Date:** February 2011

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**PROJECT INFORMATION**

**The type of development**

The proposed development will include the construction of a four kilometer water pipeline (eight boreholes with pumps and pipes) from a well field north of Graaff-Reinet to the existing water treatment plant outside the town to upgrade the existing infrastructure.

**The Developer**

Camdeboo Municipality  
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**The Consultant**

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**Terms of Reference**

The original proposal was to conduct a Phase 1 Archaeological Impact Assessment of the proposed construction of a four kilometre water pipeline to upgrade the existing infrastructure at Graaff-Reinet, Camdeboo Municipality, Eastern Cape Province, to describe and evaluate the importance of possible archaeological heritage sites, the potential impact of the development and to make recommendations to minimize possible damage to these sites.

**DESCRIPTION OF THE PROPERTY**

**Map**

1:50 000: 3224 BA Graaff Reinet (north)

## Location data

The proposed four kilometer water pipeline will be constructed from a well field north of Graaff-Reinet to the existing water treatment plant outside the town of Graaff-Reinet, Camdeboo Municipality, Eastern Cape Province. It will run from the existing well field in a south-easterly direction to the N9 national road and then southwest along the road, between the fence and the power line to the present pump station on the hill overlooking the town (Maps 1-2).

## ARCHAEOLOGICAL INVESTIGATION

### Methodology and results

The investigation was conducted on foot and spot checks and surveys from a vehicle. GPS readings were taken with a Garmin and all important features were digitally recorded. The first part of the water pipeline runs from the well field (GPS reading: 32.11.964S; 24.32.715E) north of Graaff-Reinet to the N9 national road to Middelburg (Figs 1-4). The area around the boreholes is disturbed by the drilling activities and roads. From the well field the pipeline follows a gravel road in a south-easterly direction to the N9 and runs through an area of well 'eroded' surface red sand covered with typical Karroo shrub vegetation. No archaeological material was found at the well site or along the route towards the N9.

From the N9 the pipeline runs in a south-westerly direction over a stream towards Graaff-Reinet parallel to, and between the road reserve fence and the power lines. The area between the N9 and power lines is disturbed by road maintenance, the construction of the fences and power lines. Run-off water from the road surface has also caused surface erosion. The ground cover along the route composed of low bushy Karroo veld and patches of *Acacia karroo* trees (Figs. 5-8). No archaeological material of any significance was found along the N9 route.

Near the town the pipeline runs past the Andries Pretorius Monument (GPS reading: 32.13.869S; 24.32.146E). The surrounding area and route to the reservoir on the top of the hill is severely disturbed by road construction and past farming activities. Rubble, bricks and remains of old dams and other structures/features are visible over a large area (Figs 9-10). From here the pipeline route follows the gravel road uphill to the reservoir (Figs 11-12). The area surrounding the reservoir (GPS reading: 32.14.514S; 24.31.92E) was investigated and although there are a large number of dolerite boulders on the hill, none displayed any engravings. Due to the large scale disturbances no archaeological material of any significance was found along the route to the reservoir area. In general it would appear unlikely that any archaeological heritage remains of any value will be exposed during the development.



**Figs 1-2. Views of the borehole area from where the water pipeline route starts towards the N9 national road (bottom right).**



**Figs 3-4. Views of the pipeline route from the well field area towards the N9 national road (right).**



**Figs 5-10. Different views of the pipeline route and terrain along the N9 national road.**



**Figs 11-12. A wide angle view of the pipeline route and the area near the reservoir.**

## CONDITIONS

The water pipeline must be constructed at a safe distance from the Andries Pretorius Monument next to the N9 national road to make sure than no damage occurs to the monument.

Although it is unlikely that any archaeological heritage remains of any value will be found *in situ* or of any contextual value, there is always a possibility that human remains and/or other archaeological and historical material may be uncovered during the development. Such material must be reported to the nearest museum, archaeologist or to the South African Heritage Resources Agency if exposed, so that a systematic and professional investigation can be undertaken. Sufficient time should be allowed to remove/collect such material (See Appendix A for a list of possible archaeological sites that maybe found in the area).

## LETTER OF RECOMMENDATION

It is recommended that the proposed construction of a four kilometre water pipeline from a well field north of Graaff-Reinet to the existing reservoir outside the town of Graaff-Reinet, Camdeboo Municipality, Eastern Cape Province, is exempted from a full Phase 1 Archaeological Impact Assessment. The proposed area for development is of low cultural sensitivity and it is believed that it is unlikely that any archaeological heritage remains will be found on the property. The proposed development may proceed as planned.

Note that this letter of recommendation only exempts the proposed development from a full Phase 1 Archaeological Heritage Impact Assessment, but not for other heritage impact assessments. It must also be clear that this letter of recommendation for exemption of a full Phase 1 archaeological heritage impact assessment will be assessed by the relevant heritage resources authority. The final decision rests with the heritage resources authority, which should give a permit or a formal letter of permission for the destruction of any cultural sites.

The National Heritage Resources Act (Act No. 25 of 1999, section 35) (see Appendix A) requires a full Heritage Impact Assessment (HIA) in order that all heritage resources, that is, all places or objects of aesthetics, architectural, historic, scientific, social, spiritual linguistic or technological value or significance are protected. Thus any assessment should make provision for the protection of all these heritage components, including archaeology, shipwrecks, battlefields, graves, and structures older than 60 years, living heritage, historical settlements, landscapes, geological sites, palaeontological sites and objects.

## GENERAL REMARKS AND CONDITIONS

It must be emphasised that this letter of recommendation for exemption of a full Phase 1 archaeological heritage impact assessment is based on the visibility of archaeological sites/material and may not therefore, reflect the true state of affairs. Sites and material may be covered by soil and vegetation and will only be located once this has been removed. In the unlikely event of such finds being uncovered, (during any phase of construction work), archaeologists must be informed immediately so that they can investigate the importance of the sites and excavate or collect material before it is destroyed (see attached list of possible archaeological sites and material). The *onus* is on the developer to ensure that this agreement is honoured in accordance with the National Heritage Act No. 25 of 1999.

### APPENDIX A: brief legislative requirements

Parts of sections 35(4), 36(3) and 38(1) (8) of the National Heritage Resources Act 25 of 1999 apply:

#### ***Archaeology, palaeontology and meteorites***

35 (4) *No person may, without a permit issued by the responsible heritage resources authority—*

- (a) *destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;*
- (b) *destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;*
- (d) *bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment which assist in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.*

#### ***Burial grounds and graves***

36. (3) (a) *No person may, without a permit issued by SAHRA or a provincial heritage resources authority—*

- (a) *destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;*
- (b) *destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or*
- (c) *bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation equipment, or any equipment which assists in the detection or recovery of metals.*

#### ***Heritage resources management***

38. (1) *Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorized as –*

- (a) *the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;*
- (b) *the construction of a bridge or similar structure exceeding 50m in length;*
- (c) *any development or other activity which will change the character of the site –*
  - (i) *exceeding 5000m<sup>2</sup> in extent, or*
  - (ii) *involving three or more erven or subdivisions thereof; or*

- (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or*
- (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA, or a provincial resources authority;*
- (d) the re-zoning of a site exceeding 10 000m<sup>2</sup> in extent; or*
- (e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must as the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.*

## **APPENDIX A: IDENTIFICATION OF ARCHAEOLOGICAL FEATURES AND MATERIAL FROM INLAND AREAS: guidelines and procedures for developers**

### **Human Skeletal material**

Human remains, whether the complete remains of an individual buried during the past, or scattered human remains resulting from disturbance of the grave, should be reported. In general human remains are buried in a flexed position on their side, but are also found buried in a sitting position with a flat stone capping. Developers are requested to be on alert for the possibility of uncovering such remains.

### **Freshwater mussel middens**

Freshwater mussels are found in the muddy banks of rivers and streams and were collected by people in the past as a food resource. Freshwater mussel shell middens are accumulations of mussel shell and are usually found close to rivers and streams. These shell middens frequently contain stone tools, pottery, bone, and occasionally human remains. Shell middens may be of various sizes and depths, but an accumulation which exceeds 1 m<sup>2</sup> in extent, should be reported to an archaeologist.

### **Large stone cairns**

They come in different forms and sizes, but are easy to identify. The most common are roughly circular stone walls (mostly collapsed) and may represent stock enclosures, remains of wind breaks or cooking shelters. Others consist of large piles of stones of different sizes and heights and are known as *isisivane*. They are usually near river and mountain crossings. Their purpose and meaning is not fully understood, however, some are thought to represent burial cairns while others may have symbolic value.

### **Stone artefacts**

These are difficult for the layman to identify. However, large accumulations of flaked stones which do not appear to have been distributed naturally should be reported. If the stone tools are associated with bone remains, development should be halted immediately and archaeologists notified.

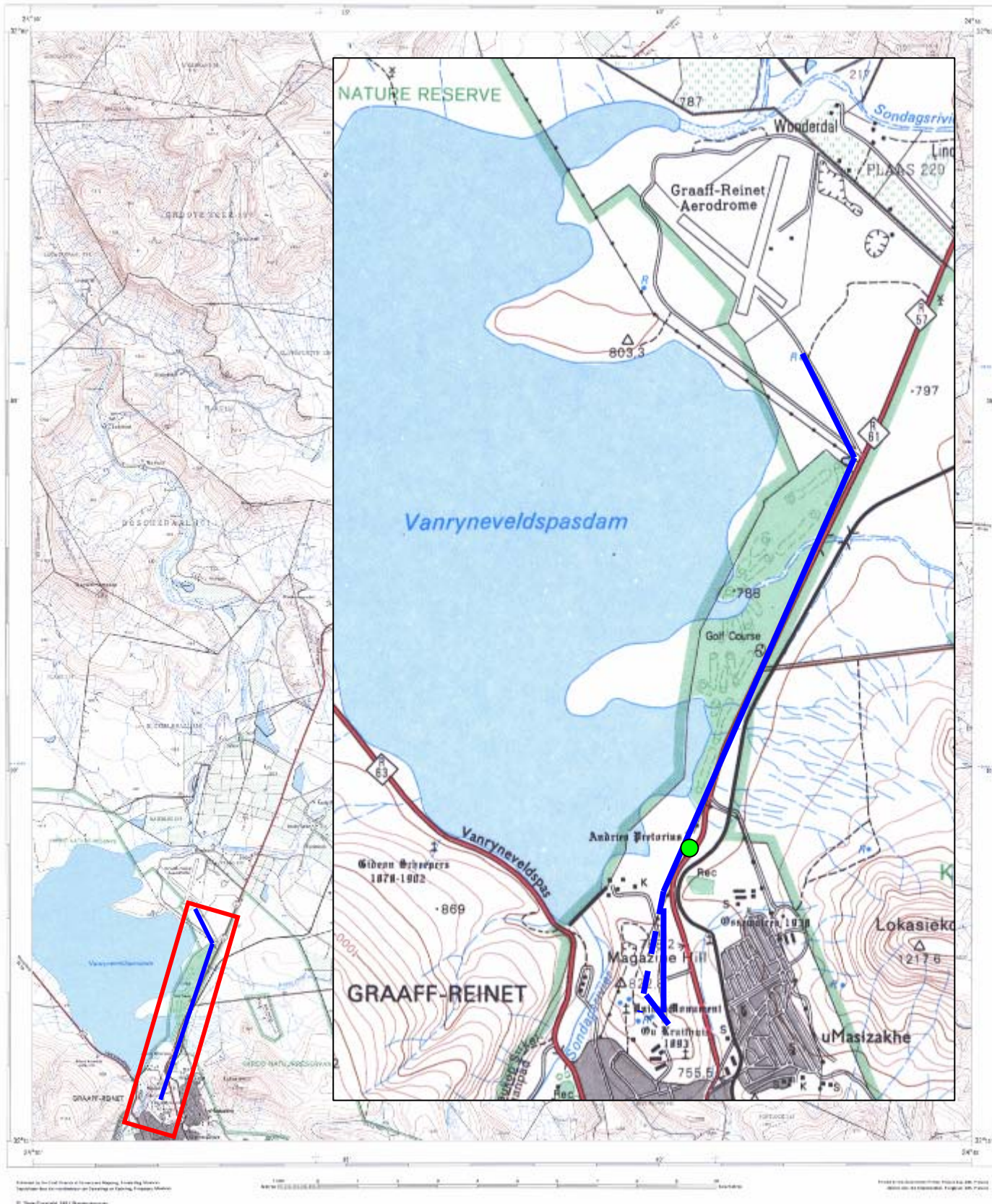
### **Fossil bone**

Fossil bones may be found embedded in geological deposits. Any concentrations of bones, whether fossilized or not, should be reported.

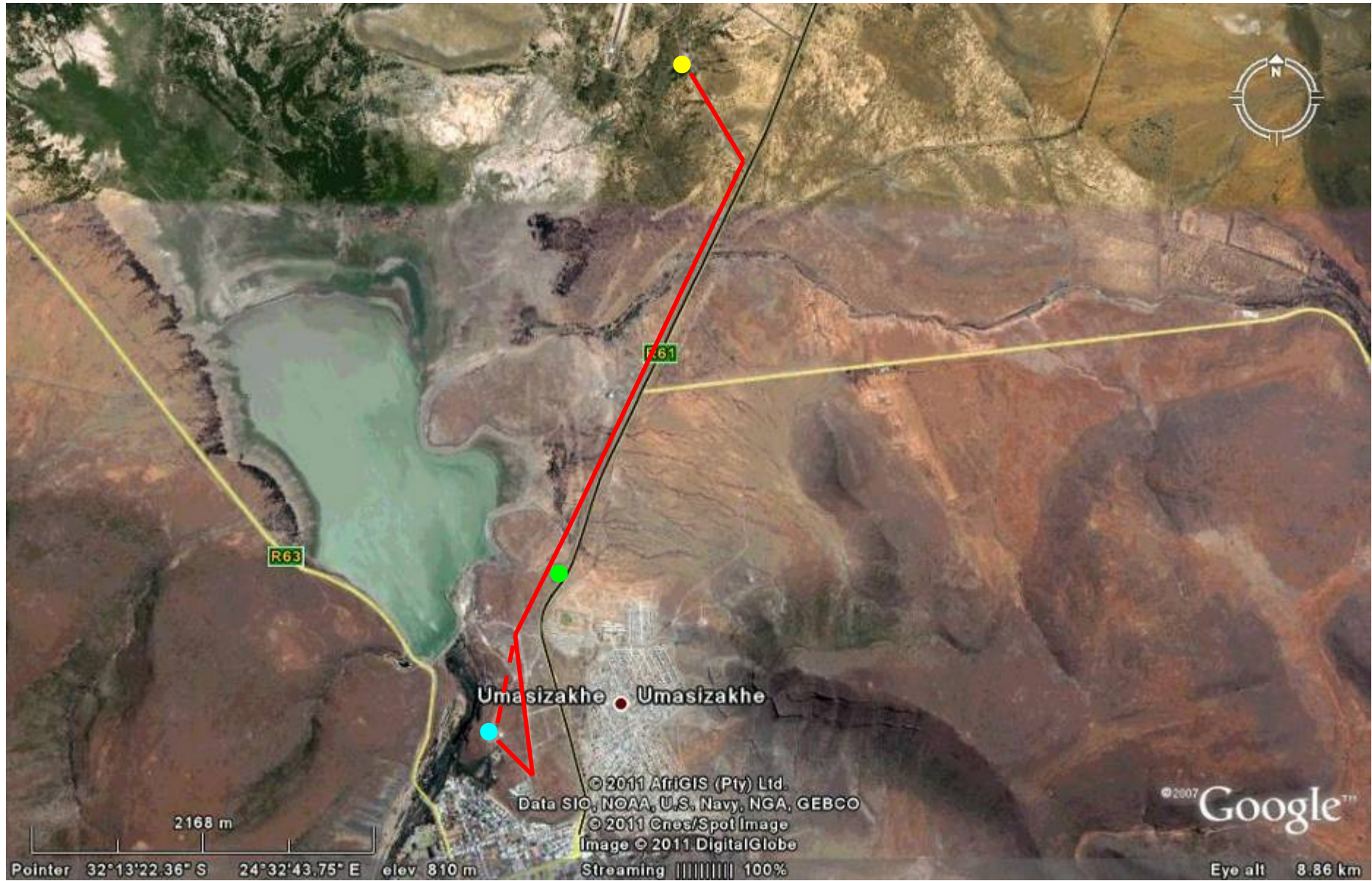
### **Historical artefacts or features**

These are easy to identify and include foundations of buildings or other construction features and items from domestic and military activities.





Map 1. 1:50 000 maps indicating the approximate location of the proposed water pipeline development (blue lines). The green dot marks the monument.



**Map 2. An aerial photograph indicating the approximate location of the water pipeline (red line). The yellow dot marks the start of the water pipeline at the well field and the light blue dot the existing reservoir. The green dot marks the Andries Pretorius Monument.**