

HERITAGE IMPACT ASSESSMENT REPORT

**PROPOSED DEVELOPMENT OF A SHOPPING CENTRE AND A
FILLING STATION IN NAMAKGALE ON THE PORTION OF THE
REMAINING EXTENT OF THE FARM MAKUSHANE LOCATION 28-LU
WITHIN BA-PHALABORWA LOCAL MUNICIPALITY OF MOPANI
DISTRICT, LIMPOPO PROVINCE**

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EXECUTIVE SUMMARY

The Phalaborwa area is rich in archaeological resource where copper and iron were mined in ancient times. These sites normally occur at the bases of kopjes, which occur abundantly in the area; some destroyed by mining. The demarcated project area lies in a valley away from such kopjes. The area has recently been deforested and altered by earthworks for housing purposes. It contains no evidence of heritage resources. The proposed development of a Shopping Centre and a Filling Station in Namakgale poses no threat to known heritage resources and there will be no foreseen cumulative impacts relating to the project.

No specific mitigation measures are recommended other than should any heritage remains be discovered by chance, then the heritage authority and the archaeologist must be informed and work ceased at that place.

From a heritage management perspective, there is no reason why the proposed development may not continue.

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1. INTRODUCTION AND SITE DESCRIPTION

The author was appointed by Phakanani Environmental Consultants to undertake a Phase 1 Heritage Impact assessment of the proposed development of a Shopping Centre and a Filling Station with the storage capacity of 138m³ in Namakgale on the Portion of the Remaining Extent of the farm Makushane Location 28-LU within Ba-Phalaborwa Local Municipality of Mopani District, Limpopo Province.

The proposed location is situated adjacent to Namakgale A, approximately 1.5km south of road R71 and about 2.4 km west of road R40. Although the Google earth imagery depicts the proposed development site as densely vegetated, the site visit in September revealed that the entire area between the municipal road and the proposed site is in the process of being deforested for housing purposes (see Figures 1-3).

2. TERMS OF REFERENCE

- Review baseline information;
- Impact assessment – identify and assess potential impacts and determine cumulative impacts relating to the project;
- Identify mitigation measures;
- Provide guidance with regard to additional information, if applicable; and
- Provide project recommendations.

3. LEGAL REQUIREMENTS

3.1 The National Heritage Resources Act (25 of 1999) (NHRA)

This Act established the South African Heritage Resources Agency (SAHRA) and makes provision for the establishment of Provincial Heritage Resources Authorities (PHRAs). The Act makes provision for the undertaking of heritage resources impact assessments for various categories of development as determined by Section 38. It also provides for the grading of heritage resources (Section 7) and the implementation of a three-tier level of responsibilities and functions for heritage resources to be undertaken by the State, Provincial authorities and Local authorities, depending on the grade of the Heritage resources (Section 8).

In terms of the National Heritage Resources Act (1999) the following is of relevance:

Historical remains

Section 34(1) No person may alter or demolish any structure or part of a structure, which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

Archaeological remains

Section 35(3) Any person who discovers archaeological or palaeontological objects or material or a meteorite in the course of development or agricultural activity must immediately report the find to the responsible heritage resources authority or to the nearest local authority or museum, which must immediately notify such heritage resources authority.

Subsection 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;
- (c) trade in, sell for private gain, export or attempt to export from the republic any category of archaeological or palaeontological material or object, or any meteorite; or
- (d) bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment which assist with the detection or recovery of metals or archaeological material or objects, or use such equipment for the recovery of meteorites.

Subsection 35(5) When the responsible heritage resources authority has reasonable cause to believe that any activity or development which will destroy, damage or alter any archaeological or palaeontological site is under way, and where no application for a permit has been submitted and no heritage resources management procedures in terms of section 38 has been followed, it may-

- (a) serve on the owner or occupier of the site or on the person undertaking such development an order for the development to cease immediately for such period as is specified in the order;
- (b) carry out an investigation for the purpose of obtaining information on whether or not an archaeological or palaeontological site exists and whether mitigation is necessary;
- (c) if mitigation is deemed by the heritage resources authority to be necessary, assist the person on whom the order has been served under paragraph (a) to apply for a permit as required in subsection (4); and
- (d) recover the costs of such investigation from the owner or occupier of the land on which it is believed an archaeological or palaeontological site is located or from the person proposing to undertake the development if no application for a permit is received within two weeks of the order being served.

Subsection 35(6) The responsible heritage resources authority may, after consultation with the owner of the land on which an archaeological or palaeontological site or meteorite is situated; serve a notice on the owner or any other controlling authority, to prevent activities within a specified distance from such site or meteorite.

Burial grounds and graves

Subsection 36(3)

- (a) No person may, without a permit issued by SAHRA or a provincial heritage resources authority-
- (c) 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

- (d) 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 detection or recovery of metals.

Subsection 36(6) Subject to the provision of any law, any person who in the course of development or any other activity discovers the location of a grave, the existence of which was previously unknown, must immediately cease such activity and report the discovery to the responsible heritage resources authority which must, in co-operation with the South African Police Service and in accordance with regulations of the responsible heritage resources authority-

- (a) carry out an investigation for the purpose of obtaining information on whether or not such grave is protected in terms of this Act or is of significance to any community; and
- (b) if such grave is protected or is of significance, assist any person who or community which is a direct descendant to make arrangements for the exhumation and re-interment of the content of such grave or, in the absence of such person or community, make any such arrangement as it deems fit.

Culture Resource Management

Subsection 38(1) Subject to the provisions of subsection (7), (8) and (9), any person who intends to undertake a development* ...

must at the very earliest stages of initiating such development notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

***‘development’** means any physical intervention, excavation, or action, other than those caused by natural forces, which may in the opinion of the heritage authority in any way result in a change to the nature, appearance or physical nature of a place, or influence its stability and future well-being, including-

- (a) construction, alteration, demolition, removal or change of use of a place or a structure at a place;
- (b) carry out any works on or over or under a place*;
- (e) any change to the natural or existing condition or topography of land, and
- (f) any removal or destruction of trees, or removal of vegetation or topsoil;

***‘place’** means a site, area or region, a building or other structure* ...”

***‘structure’** means any building, works, device or other facility made by people and which is fixed to the ground ...”

3.2 The Human Tissues Act (65 of 1983) and Ordinance on the Removal of Graves and Dead Bodies (Ordinance 7 of 1925)

This Act and Ordinance protects graves younger than 60 years. These fall under the jurisdiction of the National Department of Health and the Provincial Health Departments. Approval for the exhumation and re-burial must be obtained from the relevant Provincial MEC as well as the relevant Local Authorities.

4. METHODOLOGY

4.1 Sources of information

The project area was surveyed on foot. As most archaeological material occurs in single or multiple stratified layers beneath the soil surface, special attention was given to disturbances, both man-made such as roads, clearings and the geo-technical trenches, as well as those made by natural agents such as burrowing animals and erosion. Locations were recorded by means of a handheld GPS. In addition, the SAHRIS database was consulted and no previous heritage impact assessments that covers the immediate area was found. Google Earth and Topographical map 2330 BC was consulted. Aerial imagery readily show Iron Age archaeological sites because of changing vegetation.

4.2 Limitations

No limitations were mostly experienced due to the sparse vegetation. It must be noted that archaeological remains are generally subterranean and may have been missed. Such remains may only become visible during earthwork disturbances.

4.3 Categories of significance

The significance of heritage sites is ranked into the following categories.

No significance: sites that do not require mitigation.
Low significance: sites, which <i>may</i> require mitigation.
Medium significance: sites, which require mitigation.
High significance: sites, which must not be disturbed at all.

The significance of specifically an archaeological site is based on the amount of deposit, the integrity of the context, the kind of deposit and the potential to help answer present research questions. Historical structures are defined by Section 34 of the National Heritage Resources Act, 1999, while other historical and cultural significant sites, places and features, are generally determined by community preferences.

4.4 Terminology

Early Stone Age:	Predominantly the Oldowan artefacts and Acheulian hand axe industry complex dating to \pm 1 Myr yrs – 250 000 yrs before present.
Middle Stone Age:	Various lithic industries in SA dating from \pm 250 000 yrs - 22 000 yrs before present.
Late Stone Age:	The period from \pm 22 000-yrs to contact period with either Iron Age farmers or European colonists.
Early Iron Age:	Most of the first millennium AD.
Middle Iron Age:	10 th to 13 th centuries AD.
Late Iron Age:	14 th century to colonial period. <i>The entire Iron Age represents the spread of Bantu speaking peoples.</i>

Phase 1 assessments:	Scoping surveys to establish the presence of and to evaluate heritage resources in a given area.
Phase 2 assessments:	In depth culture resources management studies which could include major archaeological excavations, detailed site surveys and mapping / plans of sites, including historical / architectural structures and features. Alternatively, the sampling of sites by collecting material, small test pit excavations or auger sampling could be undertaken.
Sensitive:	Often refers to graves and burial sites, as well as ideologically significant sites such as ritual / religious places. <i>Sensitive</i> may also refer to an entire landscape / area known for its significant heritage remains.

5. GENERIC BASELINE INFORMATION

5.1 The Stone Age

The Stone Age covers most of southern Africa and the earliest consist of the Oldowan and Acheul artefacts assemblages. Oldowan tools are regularly referred to as “choppers”. Oldowan artefacts are associated with *Homo habilis*, the first true humans. In South Africa definite occurrences have been found at the sites of Sterkfontein and Swartkrans. Here they are dated to between 1.7 and 2 million years old. This was followed by the Acheulian technology from about 1.4 million years ago which introduced a new level of complexity. The large tools that dominate the Acheulian artefact assemblages range in length from 100 to 200 mm or more. Collectively they are called bifaces because they are normally shaped by flaking on both faces. In plan view they tend to be pear-shape and are broad relative to their thickness. Most bifaces are pointed and are classified as handaxes, but others have a wide cutting end and are termed cleavers. The Acheulian design persisted for more than a million years and only disappeared about 250 000 years ago. Here, the Makapans Valley Site is referenced; especially the Cave of Hearths.

The change from Acheulian with their characteristic bifaces, handaxes and cleavers to Middle Stone Age (MSA), which are characterized by flake industries, occurred about 250 000 years ago and ended about 30 000 – 22 000 years ago. For the most part the MSA is associated with modern humans, *Homo sapiens*. MSA remains are found in open spaces where they are regularly exposed by erosion as well as in caves. Characteristics of the MSA are flake blanks in the 40 – 100 mm size range struck from prepared cores, the striking platforms of the flakes reveal one or more facets, indicating the preparation of the platform before flake removal (the prepared core technique), flakes show dorsal preparation – one or more ridges or arise down the length of the flake – as a result of previous removals from the core, flakes with convergent sides (laterals) and a pointed shape, and flakes with parallel laterals and a rectangular or quadrilateral shape: these can be termed pointed and flake blades respectively. Other flakes in MSA assemblages are irregular in form.

The change from MSA to Later Stone Age (LSA) took place in most parts of southern Africa little more than about 20 000 years ago. It is marked by a series of technological innovations or new tools that, initially at least, were used to do much the same job as had been done before, but in a different way. Their introduction was associated with changes in the nature of

hunter-gatherer material culture. The innovations associated with the LSA “package” of tools include rock art – both paintings and engravings – and smaller stone tools, so small that the formal tools less than 25mm long are called microliths (sometimes found in the final MSA) and bows and arrows. Rock art is an important feature of the LSA.

5.2 The Iron Age

In terms of Huffman's (2007) distribution sequences of the Iron Age, the project area may contain the remains of the under-mentioned ceramic (clay pot) units which form distinct cultural groups:

➤ **Urewe Tradition**, originating in the Great Lakes area of Central Africa, it was a secondary dispersal centre for eastern Bantu speakers. It represents the eastern stream of migration into Southern Africa. The Urewe Tradition consists of various Branches of which only the Kwale Branch is relevant with two of its ceramic units:

- **Kwale Branch:**

- Silver Leaves facies* AD 280 – 450 (Early Iron Age)

- Mzonjani facies* AD 450 – 750 (Early Iron Age)

- Garonga facies* AD 750 – 900 (Early Iron Age)

- Moloko Branch:

- Icon facies* AD 1300 – 1500 (Late Iron Age). First Sotho-Tswana speakers.

➤ **Kalundu Tradition**, originating in the far North of Angola, it was another secondary dispersal centre for eastern Bantu speakers and represents the western stream of migration into Southern Africa. Only the Happy Rest Sub-Branch with its respective ceramic units are relevant:

- **Happy Rest Sub-branch:**

- Kgopolwe facies* AD 1030 – 1350 (Middle Iron Age)

- Letaba facies* AD 1600 - 1840 (Later Iron Age)

The Phalaborwa region contains rich bodies of copper and iron ores. The copper ores have been worked, discontinuously, for the past 1200 years by a succession of people representing different archaeological complexes mentioned above. They targeted the geological formation known as the Palabora Igneous Complex. Small kopjes were formed as intrusions and most of the pre-colonial metal working communities occupied the bases of these syenite kopjes (Pistorius 1989).

The legendary copper mines of Phalaborwa are first mentioned in 1725 when Francois de Cuiper was sent by the Dutch East India Company to find the mountain of iron and copper. Long thereafter in 1868, Charl Mauch, the noted German explorer and geologist recorded in his journal: Copper ore, for which large mines are established at Palabora, is smelted by the blacks there and fashioned into ornaments (More 1974).

The most recent of the precolonial groups are the baPhalaborwa, a Sotho-speaking community with a complicated history and identity. Ethnographers such as Krige (1937a) and Hammond-Tooke (1981) have emphasised the fact that Sotho communities in the Lowveld are a complex amalgamation of people with different ancestry. Each group is made up of sub-communities of varied ancestry who, although taking their name from the ruling lineage, retain

somewhat of a distinct identity. The most in-depth and detailed academic record of the oral history of the baPhalaborwa is that produced by Scully (1978). Scully collected and synthesised a considerable amount of baPhalaborwa oral traditions, from both previously recorded fixed texts and from fourteen different informants. The oral traditions of the baPhalaborwa are dominated by the history of the Malatji ruling lineage (Scully 1978). The information relates to the period from the 1700s to the 1970s, although Scully further differentiates between period of mythical ancestors and those of known historical rulers such as Kgashane (ca 1770–1800), Mosholwane, Meele (ca 1770–1820), Makekele, Ramatladi and Paane (ca 1800–1870) (Scully 1978, 1979). The territory of the baPhalaborwa in the 18th and 19th century is recorded as extending between the Lepelle (Olifants) and Letaba (Lethaba/Ritavi) rivers (Fig. 3.1), and at times may have extended further east to the Lebombo mountains (Scully 1978: 6). The baPhalaborwa oral traditions indicate that the occupational history of the Phalaborwa area was dynamic and characterised by processes of migration, assimilation, movement and interaction. While many of the baPhalaborwa origin stories support a northern origin for the group, other stories describe a southern origin of the Malatji group and some describe their origins from the sea (possibly east) (Scully 1978: 82). Similarly, Scully noted the many contradictions in the places of origins as well as the ancestral burial places of the baPhalaborwa, observing that these reflect the heterogeneous make-up of the population as a result of different migration events into Phalaborwa and the ebb and flow of political power (Scully 1978: 92) (Extracted from Moffet 2016 with references).

5.3 The historical landscape

Copper mining by Europeans was first undertaken at Phalaborwa in 1904 but was soon suspended because of the high cost of transport. The discovery of phosphates led to the formation of the Phosphate Development Corporation (Foskor) in 1951 and the establishment of the town of Phalaborwa in 1957.

6. RESULTS OF THE SURVEY

6.1 Palaeontology

The area falls in the grey colour code on the Palaeo-Sensitivity map. No palaeontological study is required.

6.2 Stone Age remains

No Stone Age material was observed in the project area.

6.3 Iron Age

Two non-contextual pottery shards were noted at coordinates -23.29720° 29.66546. Both are undecorated and therefore non-diagnostic. No other evidence of an archaeological site was noted.

6.4 Graves and burials

No Graves or burial sites were observed on the terrain. I interviewed a local herdsman who had no knowledge of such places.

6.5 The built environment

There are no buildings older than 60 years in the demarcated area.

7. EVALUATION AND STATEMENT OF SIGNIFICANCE

The Proposed Establishment of the Township on the Farm Greater Giyani 891-LT does not impact on any heritage resources.

7.1 Significance criteria in terms of Section 3(3) of the National Heritage Resources Act

	Significance	Rating
1.	The importance of the cultural heritage in the community or pattern of South Africa's history (Historic and political significance).	None
2.	Possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage (Scientific significance).	None
3.	Potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage (Research/scientific significance)	None
4.	Importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects (Scientific significance).	None
5.	Importance in exhibiting particular aesthetic characteristics valued by a community or cultural group (Aesthetic significance).	None
6.	Importance in demonstrating a high degree of creative or technical achievement at a particular period (Scientific significance).	None
7.	Strong or special association with a particular community or cultural group for social, cultural or spiritual reasons (Social significance).	None
8.	Strong or special association with the life and work of a person, group or organization of importance in the history of South Africa (Historic significance).	None
9.	The significance of the site relating to the history of slavery in South Africa.	None

7.2 ***Section 38(3) (c) An assessment of the impact of the development on such heritage resources***

The development will have no effect on heritage sites.

7.3 ***Section 38(3) (d) An evaluation of the impact of the development on heritage resources relative to the sustainable economic benefits to be derived from the development***

No significant heritage remains were recorded except two potshards. The sustainable economic benefits outweigh the conservation benefits.

7.4 ***Section 38(3) (e) The results of consultation with the communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources***

Consultation is ongoing.

7.5 ***Section 38(3)(f) If heritage resources will be adversely affected by the proposed development the consideration of alternatives***

No viable alternatives exist.

7.6 ***Section 38(3)(g) Plans for mitigation of any adverse effects during and after the completion of the proposed development.***

No mitigation measures are recommended.

8. CONCLUSION

The Phalaborwa area is rich in archaeological resource where copper and iron were mined in ancient times. These sites normally occur at the bases of kopjes, which occur abundantly in the area; some destroyed by mining. The demarcated project area lies in a valley away from such kopjes. The area has recently been deforested and altered by earthworks for housing purposes. It contains no evidence of heritage resources. The proposed development of a Shopping Centre and a Filling Station in Namakgale poses no threat to known heritage resources and there will be no foreseen cumulative impacts relating to the project.

From a heritage management perspective, there is no reason why the proposed development may not continue.

9. RECOMMENDATIONS

No specific mitigation measures are recommended other than should any heritage remains be discovered by chance, then the heritage authority and the archaeologist must be informed and work ceased at that place.

10. REFERENCES

Deacon, HJ and Deacon, J. 1999. *Human Beginnings in South Africa. Uncovering the Secrets of the Stone Age*. David Philip Publishers. Cape Town & Johannesburg.

Huffman, TN. 2007. *Handbook to the Iron Age. The archaeology of Pre-colonial Farming Societies in Southern Africa*. University of KwaZulu-Natal Press.

Moffett, AJ. 2016. '*Phalaborwa where the hammer is heard*': crafting together the political economy of Iron Age communities in southern Africa, AD 900-1900. Ph.D. thesis. University of Cape Town.

More. CE. 1974. Some observations on 'ancient' mining at Phalaborwa. *Journal of the South African Institute of Mining and Metallurgy*.

Pistorius, J., 1989. *Die Metaalbewerders Van Phalaborwa*. Ph.D. thesis. University of Pretoria.

Scully. RT. 1978. *Phalaborwa oral tradition*. Unpublished Ph.D. thesis: State University of New York at Binghamton.

11. VISUAL RECORD



Figure 1. A view of the project location - in a south-easterly direction.



Figure 2. A view of the project location - in an easterly direction.



Figure 3. Google earth image showing project location.

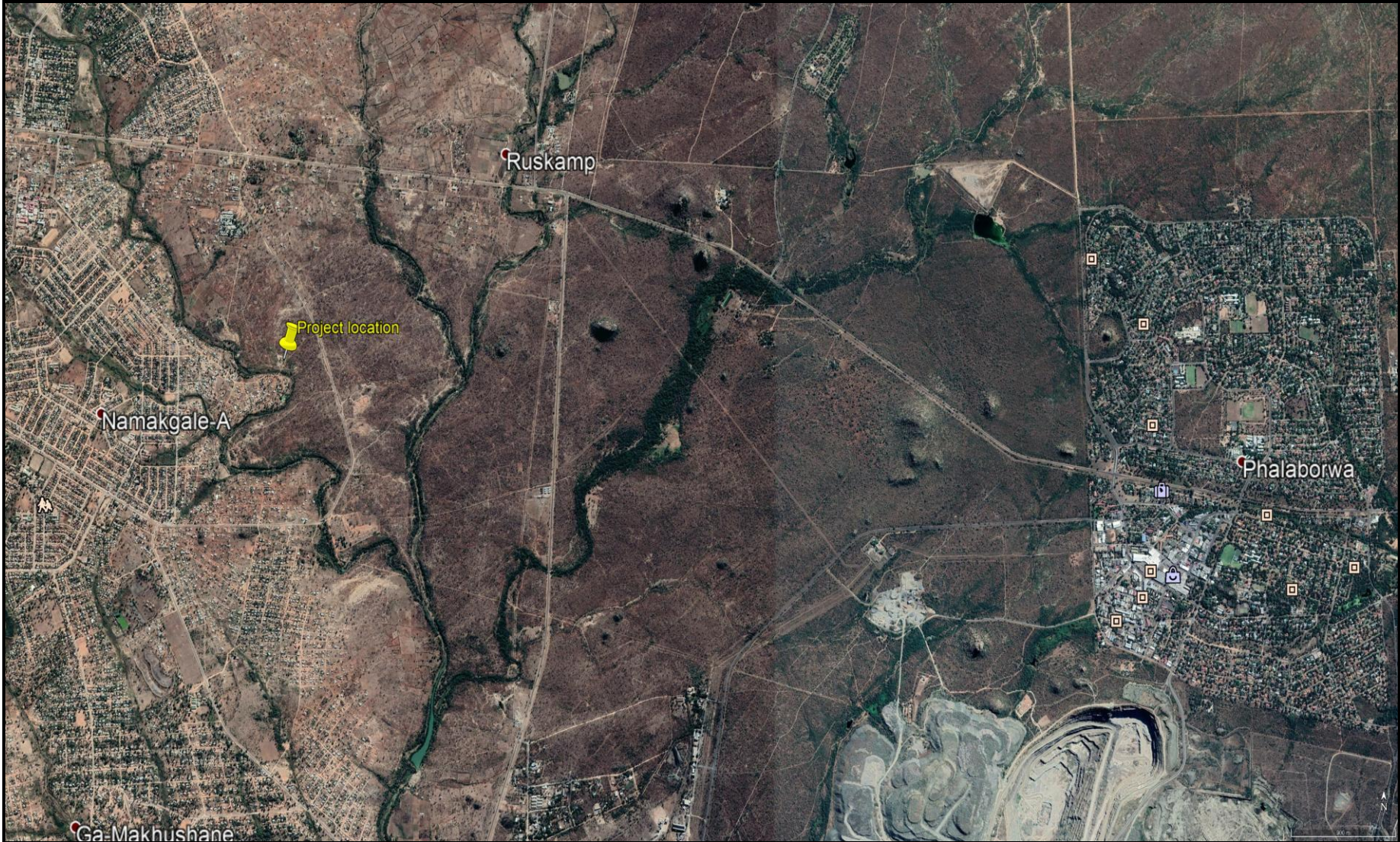


Figure 4. Google Earth image of the project location in relation to Phalaborwa.