Phase I Heritage Assessment of P23001 (R524) SANRAL Albisini to Tshakuma Development Project

Province: Limpopo Province

District Municipality: The Vhembe District Municipality

Local Municipality: Makhado Local Municipality

Implementing Agent: SANRAL

For: Delta Environmetal Services



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Executive Summary

This report addresses the Proposed Upgrade on National Road R524 Section 1 from Albasini (Km 22.0) to Tshakhuma (Km 43.6) within the Makhado Local Municipality in the Vhembe District of the Limpopo Province

The main sources of information are a literature review and the SAHRIS database supplemented by a field survey entailing a vehicle and pedestrian reconnaissance.

The project area had been severely impacted and modified in the past by the existing road as well as the extensive agricultural and residential practices along this stretch of the road. This includes the two identified borrow pits that will be used.

No significant heritage resources were recorded. As a result of the assessment, no specific recommendation for mitigation is proposed for the intended Upgrade on National Road R524 Section 1.

However, should a chance discovery be made of any archaeological or significant heritage remains, the heritage authority or the archaeologist must be informed and measures be taken to safeguard such remains until the necessary action is implemented.

From a heritage resources management perspective, it is unlikely that any fatal flaw exists and there is no reason why the development should not continue.

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1. INTRODUCTION AND LOCALITY DESCRIPTION

The authors were appointed by Delta Environmental Services to undertake a heritage impact assessment for the proposed upgrade on National Road R524, Section 1 from Albasini to Tshakhuma between Louis Trichardt and Thohoyandou within the Makhado Local Municipality in the Vhembe District of the Limpopo Province.

The proposed upgrade starts 22 km east of Louis Trichardt and ends 21.6 km farther along the R524 in Tshakhuma village, approximately 20 km south-west of Thohoyandou. (Figure 1).

The objective of this project is to provide additional capacity on the current carriageway to meet demand for increased traffic, improve Level of Service (LOS), improve road safety and to reduce conflict between mobility traffic and local non-motorised transport (NMT) users.

R524 Section 1 is located in a semi-arid climatic region with an average yearly rainfall of 765 mm and the route traverses rolling terrain with some steep sections. The geology of the site consists of metamorphic rocks of the Goudplaats Houtriver Gneiss suite, which forms part of the North Eastern Kaapvaal Craton. The road crosses bridges over streams, a number of culverts and embankments. By far, most of the road is bordered by private farms where orchards of mangoes, avocado pear, litchi, banana and timber are grown, right up to the road reserve. The built-up area in Tshakhuma is located between km 43,1 and km 43,6.

The main impact on the receiving environment will consist of filling and road cuttings to widen the road for the upgrade. Some culverts will be demolished and replaced. All of these activities will take place within the road reserve where the surface has already been severely disturbed.

Material for the infill will be obtained from two previously used borrow pits, which were also assessed for the project.

The locations of the two borrow pits are:

- 1.1 at the 16.8km distance from Louis Trichardt (coordinates: 23° 3'44.00"S, 30° 4'1.00"E)
- 1.2 at the 22 km distance from Louis Trichardt (coordinates: 23° 5'18.61"S, 30° 6'32.34"E)

2. TERMS OF REFERENCE

Undertake a Heritage Impact Assessment and submit a specialist report, which addresses the following:

- A desktop and field assessment to gather information on heritage resources within the proposed development site;
- Identify possible archaeological, cultural and historic sites within the proposed development area;
- Evaluate the potential impacts of construction, operation and maintenance of the proposed development on archaeological, cultural and historical resources;
- Recommend mitigation measures to ameliorate any negative impacts on areas of archaeological, cultural or historical importance; and
- · Identifying key uncertainties and risks.

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 (PHRA). 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 form 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-
- I 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-

- 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 reinterment of the content of such grave or, in the absence of such person or community, make any such arrangement as it deems fit.

Public monuments and memorials

Subsection 37. Public monuments and memorials must, without the need to publish a notice to this effect, be protected in the same manner as places which are entered in a heritage register referred to in section 30.

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 <u>natural forces</u>, 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;

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 main sources of information are a literature review and the SAHRIS database, supplemented by a field survey entailing a vehicle and pedestrian reconnaissance. In addition, Google Earth and the Topographical map 2330 AA was consulted.

Consulted heritage resource impact assessments that are relevant to the study area and cover at least a radius of 15km are listed in the **references** below. None of these reports contain references to any significant heritage remains in the immediate vicinity of the project.

^{*&}quot;place means a site, area or region, a building or other structure* ..."

^{*&}quot;structure means any building, works, device or other facility made by people and which is fixed to the ground ..."

4.2 Limitations

No limitations were experienced. The road reserve is generally well cut and clear of vegetation. Visibility was excellent. This applies to Tshakhuma village as well.

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 may 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 culturally 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 + 1Myr yrs – 250 000 yrs. before present.

Middle Stone Age: Various lithic industries in SA dating from ± 250 000 yrs. - 22 000 yrs.

before present.

Late Stone Age: The period from ± 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: 10th to 13th centuries AD.

Late Iron Age: 14th century to colonial period. *The entire Iron Age represents*

the spread of Bantu speaking peoples.

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. Sensitive may also refer to an entire landscape / area known for its significant

heritage remains.

NHRA National Heritage Resources Act (Act no. 25 of 1999).

SAHRA South African Heritage Resources Agency.

SAHRIS South African Heritage Resources Information System.

5. BASELINE INFORMATION

5.1 The Stone Age

The Stone Age covers most of southern Africa and the earliest consist of the Oldowan and Acheulian 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. Bearing in mind the proximity of the Makapans Valley palaeontological site, about 30km south-east of the project area, it is possible that they may occur here. 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 Middle Stone Age 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 jobs 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 Later Stone Age "package" of tools include rock art – both paintings and engravings, smaller stone tools, so small that the formal tools less that 25mm long are called microliths (sometimes

found in the final MSA), and Bows and arrows. Rock art is an important feature of the LSA and is found in the Zoutpansberg.

5.2 The Iron Age

In pre-colonial times, various Eastern Bantu-speaking people inhabited South Africa, including Nguni, Sotho-Tswana, and Tsonga. However, they were not the first groups to occupy southern Africa. About 1800 years ago their predecessors brought a new way of life to the region replacing the Stone Age hunter-gatherers. For the first time, people lived in settled communities, cultivating such crops as sorghum, millets, ground beans and cowpeas, and they herded cattle as well as sheep and goats. Because these early farming people also made their own iron tools, many archaeologists call this block of time the Iron Age. They also represent the spread of the Eastern Bantu language into southern Africa. For convenience and to mark widespread events, it is divided into three periods: the Early Iron Age (AD 200-900), the Middle Iron Age (AD 900-1300) and the Late Iron Age (AD 1300-1820) to which the ancestors of the present-day Nguni and Sotho-Tswana belonged.

Archaeologists of the Iron Age use ceramic style to establish culture-history sequences. Ceramic sequences are thus the framework for all other domains of Iron Age research, be it life ways (incorporating technology, subsistence and settlement patterns), or the explanation of cultural change.

The earliest cultural expression of the first black farmers that moved into South Africa belonged to the Uruwe Tradition, originating from the Great Lakes area of Central Africa. A secondary dispersal centre for eastern Bantu speakers was East Africa. This wave migrated southwards as part of the Kwale Branch, i.e., the **Eastern stream** of migration. They settled in the Tzaneen area in the 3rd century AD. This stream moved onto the escarpment in the Lydenberg area, and as far south as Durban in KwaZulu-Natal. From the escarpment it moved to Broederstroom near Hartbeespoort Dam. During the 5th century onwards, the **Western stream** of migration, namely the Kalundu Tradition, originating in the far North of Angola, was another secondary dispersal centre for eastern Bantu speakers. The Happy Rest Branch represents this stream and has been found in the Zoutpansberg area. It too moved onto the escarpment and further on to KwaZulu-Natal. On the escarpment it developed into the *Doornkop* and later the *Klingbeil* facies. In the western Bushveld of Limpopo, Happy Rest developed into the Diamant facies from which the *Eiland* facies derived (Middle Iron Age). *Eiland* represents the last phase of the Kalundu Ceramic Tradition in the South African interior dating to the 10th – 13th century AD.

The Middle Iron Age also represents Mapungubwe and the origins of Great Zimbabwe. They are descendants of the Early Iron Age Kalundu Tradition. The Shona of Zimbabwe and the royal families of the Venda descend from the Zimbabwe culture.

The earliest recorded facies of Sotho-Tswana Moloko Branch is *Icon*. *Icon* pottery first appears in the Phalaborwa area and spread to other parts of the Limpopo Province, Mpumalanga and perhaps Botswana, dating to between about AD 1300 and 1500. According to the ceramic evidence, in some places *Icon* incorporated earlier *Eiland* elements. This phase predates the oral record.

From the 16th to early 19th century this area, part of what is traditionally known as Venda, was dominated by Venda speakers. According to Huffman (2007) the archaeological evidence shows three layers of occupation, namely the original VhaNgona, followed by main groupings such as the Lembethu, Mbedzi and Thavhatsindi, and lastly the Singo dynasty. The VhaNgona consisted of descendants from Mapungubwe and Mutamba as well as Kalanga (Khami) and Sotho-Tswana speakers (Moloko branch). The second layer comprises the Lembethu, Mbedzi and Thavhatsindi chiefdoms, which moved in from Zimbabwe at the beginning of the 15th century. They lived at the known archaeological sites of Makahane and Thulamela (Zimbabwe style ceramics with the Karanga language). They also lived at Machemma, Verulam and Verdun (Khami style ceramics with the Kalanga language). The VhaNgona groups and the second layer Kalanga speakers integrated and produced Thavatshena ceramics, which developed into the Letaba ceramics made by the Venda and related peoples. According to Huffman (2007), this integration and the ceramic sequence reflect the evolution of Venda identity and language during the 16th and the early 17th centuries.

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

Urewe Tradition: Kwale branch - Mzonjani facies AD 450 - 750 (Early Iron Age).

Moloko branch - Icon facies AD 1300 - 1500 (Late Iron Age).

Kalundu Tradition: Happy Rest sub-branch –

Happy Rest facies AD 500 – 750 (Early Iron Age); Tavatshena facies AD 1450 – 1600 (Late Iron Age); Letaba facies AD 1600 - 1840 (Late Iron Age - Venda).

5.3 The historical period

During the second half of the 19th century the immediate project area was dominated by João Albasini and his Tsonga followers. Albasini was born in Portugal in 1813 (van Ryneveld {1998} challenges this date and places it on 26 May 1812). He accompanied his father to Mozambique in early 1831. Here he became a hunter and trader, building up a large Tsonga following. During the late 1847 he moved to Ohrigstad where he continued trading with Delagoa Bay. Here he married Gertina van Rensburg in 1850.

Another early character, Hendrik Potgieter left Ohrigstad and settled at the foothills of the Soutpansberg in 1848. His place of settlement would become the town of Schoemansdal, about 15km west of modern-day Louis Trichardt. In 1853, Albasini followed Potgieter and settled at Schoemansdal where he opened a shop. Albasini, however moved to the farm Goedewensch approximately forty-eight kilometres east of Schoemansdal with his Tsonga followers where he built a fort-like structure for protection. The farm became a centre for trade in ivory. The farm Goedewensch was later renamed Goedehoop (by 1898, all the land was surveyed into farms, which was published in Jeppe's Map of the Transvaal in 1899). The Albasini ruin is indicated on Jeppe's map on the farm Goedehoop (Figure 5).

Albasini, known as 'Juwawa' by his Tsonga followers became the white chief of the area and continued to accept refugees from Mozambique, thereby accumulating a large following. They acted as hunters and porters, and provided a military force for him.

Albasini became very influential in the Soutpansberg District. He was appointed Superintendent of Native Tribes and, at the same time, Albasini held the position of Portuguese Vice-consul in the South African Republic. By 1867, due to hostilities from the Venda, Schoemansdal was abandoned. Albasini remained in the district and his fort provided a focal point for the small group of remaining white families in the area. Albasini died on 10 July 1888 and was buried on his farm by his Tsonga followers

When the first Swiss missionaries arrived in 1875, they were given a friendly reception by Albasini. They bought the farm Klipfontein to the east of Albasini and were allowed to establish a mission station among the Tsonga people. The Mission Station was established by Ernst Creux and Henri Bertroud. The area was renamed Valdezia, a name derived from the Swiss canton of Vaud, where the missionaries came from. The Swiss erected a clinic and the Valdezia Primary School in 1888, and Valdezia was also the forerunner of Elim hospital, which was established in 1899.

Finally, the Levubu Irrigation Settlement was established on the banks of the Luvuvhu River in the 1940s, and shortly after the Second World War it was decided to improve water supply to this scheme by constructing a dam. The site identified was on Albasini's farm Goedehoop (*Goedewensch*), and thus would later carry his name. Completed in 1953, the original dam was a concrete structure with earth flanks, 30 m high and 622 m long. In 1970/71, the full supply level of the dam was increased by the installation of radial crest gates 3 m high

6. RESULTS OF THE SURVEY

6.1 Palaeontology

The study area falls within the grey colour code of the SAHRA PalaeoSensitivity Map; no palaeontological assessment is required.

6.2 Stone Age remains

No Stone Age remains were noted in the project area.

6.3 Iron Age

No Iron Age remains were noted in the project area.

6.4 Graves and burial sites

No graves or burial sites were noted in the project area.

6.5 The built environment

No historical structures were recorded in the project area.

7. DISCUSSION

The R524 upgrade project is restricted to a receiving environment that has been severely impacted and modified in the past by the existing road as well as the extensive agricultural and residential practices along this stretch of the road. This includes the two identified borrow pits that will be used.

If there had been any archaeological remains or burials in, or along, the road and road reserve, these are obscured by past activities and not visible in the present state of affairs.

In our view, there exists no fatal flaw from a heritage management perspective with regard to the project.

8. EVALUATION AND STATEMENT OF SIGNIFICANCE

The proposed upgrade of the section of road R524 does not directly impact on any known heritage resources.

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

Sig	nificance	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	None

importance in the history of South Africa (Historic significance)			
9.	The significance of the site relating to the history No.	None	
	of slavery in South Africa.		

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

The development will have a negligible impact on heritage remains.

8.3 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. The sustainable economic benefits outweigh possible conservation benefits.

8.4 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.

No impact on heritage resources is foreseen.

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

No know heritage resources will be adversely affected.

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

No specific recommendations for mitigation measures are proposed.

9. RECOMMENDATIONS AND MITIGATION MEASURES

- **9.1** No specific recommendation for mitigation is proposed for the intended R524 upgrade.
- **9.2** However, should a chance discovery be made of any archaeological or significant heritage remains, the heritage authority or the archaeologist must be informed and measures be taken to safeguard such remains until the necessary action is implemented.

10. REFERENCES

1. General sources:

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.

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Kleyn, W.J. 1988. Die lewe van João Albasini. Scientia Militaria, South African Journal of Military Studies, Vol 18, Nr 2,

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van Vuuren, L. 2012. In the Footsteps of Giants – *Exploring the history of South Africa's large dams*. A publication of the Water Research Commission of South Africa.

War Office. London. 1905. *The Native Tribes of the Transvaal*. Prepared for the General Staff.

2. Cases listed on SAHRIS:

Case ID: 16015: Kruger N 2021. Archaeological Impact Assessment (AIA) on Remainder of Portion 37 and Portion 3 of the farm Schoonuitzicht 10LT for the Proposed Schoonuitzicht Farm BA Project, Makhado Local Municipality, Limpopo Province. Prepared for AGES Limpopo. Prepared by: Exigo Sustainability.

Case ID: 16443: Kruger, N. 2019. Proposed Beja Orchards EIA Project on Portion 1, 29, 30 & 31 of the farm Beja 39 Lt, Makhado Local Municipality, Limpopo Province Archaeological Impact Assessment. Prepared for AGES Limpopo. Prepared by: Exigo Sustainability.

11. IMAGES AND MAPS

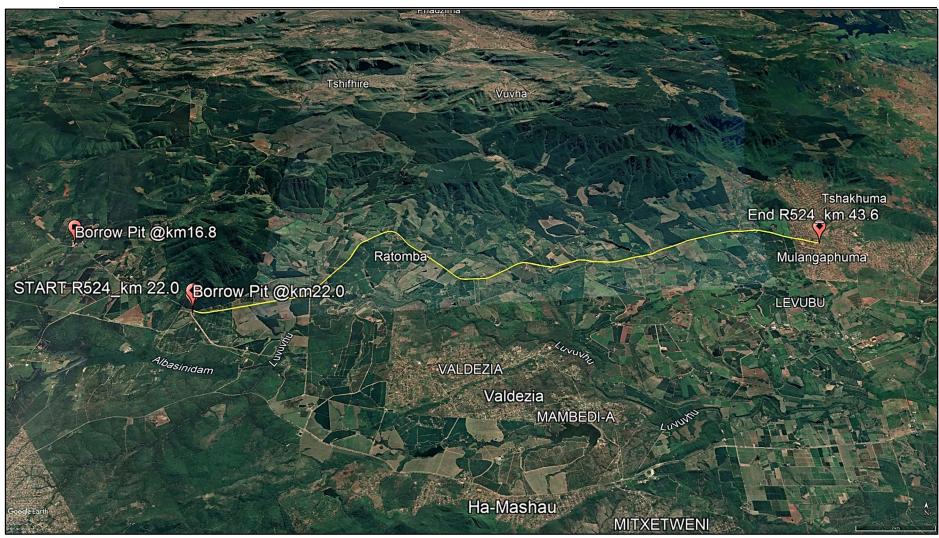


Figure 1. Google Earth image and location of the Upgrade on National Road R524 Section 1 from Albasini (Km 22.0) to Tshakhuma (Km 43.6).



Figure 2. Google Earth image of the borrow pit at 16.8 km along the R524. Note – existing borrow pit.



Figure 3. Google Earth image of the borrow pit at 22.0 km along the R524. Note – existing borrow pit.

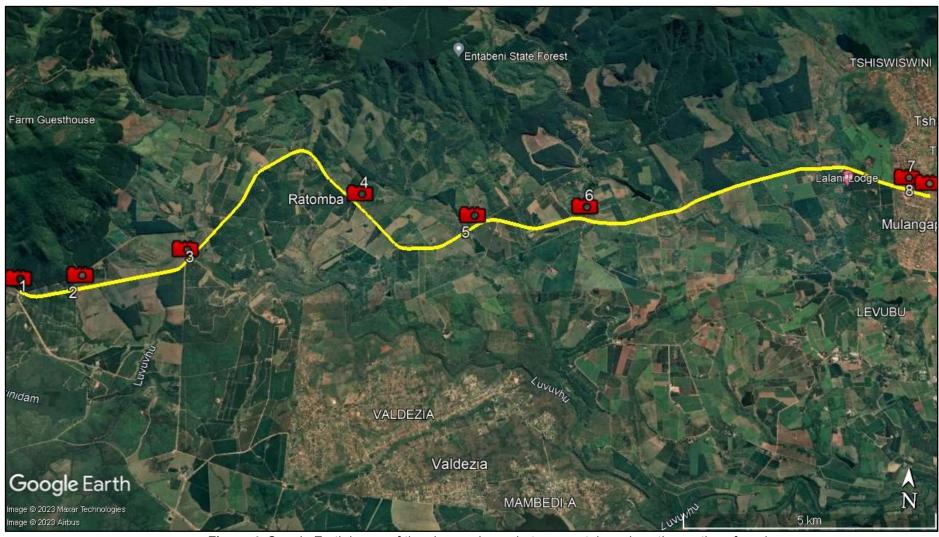


Figure 4. Google Earth image of the places where photos were taken along the section of road.

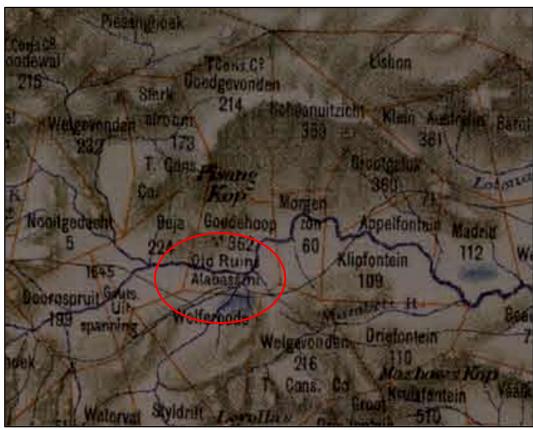


Figure 5. Jeppe's Map of the Transvaal showing the location of Albasini's ruin, which had been destroyed by the building of the Albasini dam. The farm is already named Goedehoop and not Goedewensch.



Figure 6. A view of the start of the upgrade of R524 – easterly direction. It shows the turnoff to Albasini dam. Position 1 on figure 4.



Figure 7. A roadside view at position 2 on figure 4 – easterly direction.



Figure 8. A roadside view at position 3 on figure 4 – westerly direction.



Figure 9. A roadside view at position 4 on figure 4 – westerly direction.



Figure 10. A roadside view at position 5 on figure 4 – easterly direction.



Figure 11. A roadside view at position 6 on figure 4 – easterly direction.



Figure 12. A roadside view at position 7 on figure 4 – westerly direction.



Figure 13. A roadside view at position 7 on figure 4 within a built-up area – easterly direction.



Figure 14. A roadside view at position 8 on figure 4 within Tshakhuma – westerly direction.



Figure 15. A view of the borrow pit at 16.8 km along the R524.



Figure 16. A view of the borrow pit at 22.0 km along the R524.