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#### REPORT ON A PHASE 1 HERITAGE ASSESSMENT FOR THE PROPOSED TOWNSHIP ESTABLISHMENT ON PORTIONS 1 & 2 OF THE FARM KALAHARI GHOLF & JAG LANDGOED 775, GAMAGARA LOCAL MUNICIPALITY (KATHU), NORTHERN CAPE PROVINCE

For:

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#### REPORT: APAC018/04

by:

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#### January 2018

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# SUMMARY

APelser Archaeological Consulting (APAC) was appointed by Maxim Planning Solutions to undertake a Cultural Heritage Resources Impact Assessment in respect of proposed township establishment (Kathu Extension) on Portions 1 & 2 of the farm Kalahari Gholf & Jag Landgoed 775 in the Gamagara Local Municipality (Kathu) of the Northern Cape Province.

The project is conducted on instruction from Barzani Development (Pty) Ltd.

A number of known cultural heritage sites (archaeological and/or historical) exist in the larger geographical area within which the study area falls. There are no known sites on the specific land parcel, although some archaeological material & historical sites were identified during the assessment in January 2018. The report will discuss the results of the desktop and field assessment and provide recommendations on the way forward at the end of the document.

From a Cultural Heritage point of view the development actions can continue, taking into consideration the mitigation measures proposed in the report.

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# 1. INTRODUCTION

APelser Archaeological Consulting (APAC) was appointed by Maxim Planning Solutions to undertake a Cultural Heritage Resources Impact Assessment in respect of proposed township establishment (Kathu Extension) on Portions 1 & 2 of the farm Kalahari Gholf & Jag Landgoed 775 in the Gamagara Local Municipality (Kathu) of the Northern Cape Province.

The project is conducted on instruction from Barzani Development (Pty) Ltd. A number of known cultural heritage sites (archaeological and/or historical) exist in the larger geographical area within which the study area falls. There are no known sites on the specific land parcel, although some archaeological material & historical sites were identified during the assessment in January 2018.

The client indicated the location and boundaries of the Project Area, and the assessment focused on this area.

# 2. TERMS OF REFERENCE

The Terms of Reference for the study was to:

- 1. Identify all objects, sites, occurrences and structures of an archaeological or historical nature (cultural heritage sites) located on the portion of land that will be impacted upon by the proposed development;
- 2. Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value;
- 3. Describe the possible impact of the proposed development on these cultural remains, according to a standard set of conventions;
- 4. Propose suitable mitigation measures to minimize possible negative impacts on the cultural resources;
- 5. *Review applicable legislative requirements;*

### 3. LEGISLATIVE REQUIREMENTS

Aspects concerning the conservation of cultural resources are dealt with mainly in two acts. These are the National Heritage Resources Act (Act 25 of 1999) and the National Environmental Management Act (Act 107 of 1998).

### **3.1 The National Heritage Resources Act**

According to the above-mentioned act the following is protected as cultural heritage resources:

- a. Archaeological artifacts, structures and sites older than 100 years
- b. Ethnographic art objects (e.g. prehistoric rock art) and ethnography
- c. Objects of decorative and visual arts

- d. Military objects, structures and sites older than 75 years
- e. Historical objects, structures and sites older than 60 years
- f. Proclaimed heritage sites
- g. Grave yards and graves older than 60 years
- h. Meteorites and fossils
- i. Objects, structures and sites of scientific or technological value.

The National Estate includes the following:

- a. Places, buildings, structures and equipment of cultural significance
- b. Places to which oral traditions are attached or which are associated with living heritage
- c. Historical settlements and townscapes
- d. Landscapes and features of cultural significance
- e. Geological sites of scientific or cultural importance
- f. Sites of Archaeological and palaeontological importance
- g. Graves and burial grounds
- h. Sites of significance relating to the history of slavery
- i. Movable objects (e.g. archaeological, palaeontological, meteorites, geological specimens, military, ethnographic, books etc.)

A Heritage Impact Assessment (HIA) is the process to be followed in order to determine whether any heritage resources are located within the area to be developed as well as the possible impact of the proposed development thereon. An Archaeological Impact Assessment (AIA) only looks at archaeological resources. An HIA must be done under the following circumstances:

- a. The construction of a linear development (road, wall, power line, canal etc.) exceeding 300m in length
- b. The construction of a bridge or similar structure exceeding 50m in length
- c. Any development or other activity that will change the character of a site and exceed  $5\ 000\text{m}^2$  or involve three or more existing erven or subdivisions thereof
- d. Re-zoning of a site exceeding  $10\ 000\ \text{m}^2$
- e. Any other category provided for in the regulations of SAHRA or a provincial heritage authority

### <u>Structures</u>

Section 34 (1) of the mentioned act states that no person may demolish any structure or part thereof which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

A structure means any building, works, device or other facility made by people and which is fixed to land, and includes any fixtures, fittings and equipment associated therewith.

Alter means any action affecting the structure, appearance or physical properties of a place or object, whether by way of structural or other works, by painting, plastering or the decoration or any other means.

### Archaeology, palaeontology and meteorites

Section 35(4) of this act deals with archaeology, palaeontology and meteorites. The act states that no person may, without a permit issued by the responsible heritage resources authority (national or provincial)

- 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 that assists in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.
- e. alter or demolish any structure or part of a structure which is older than 60 years as protected.

The above mentioned may only be disturbed or moved by an archaeologist, after receiving a permit from the South African Heritage Resources Agency (SAHRA). In order to demolish such a site or structure, a destruction permit from SAHRA will also be needed.

#### <u>Human remains</u>

Graves and burial grounds are divided into the following:

- a. ancestral graves
- b. royal graves and graves of traditional leaders
- c. graves of victims of conflict
- d. graves designated by the Minister
- e. historical graves and cemeteries
- f. human remains

In terms of Section 36(3) of the National Heritage Resources Act, no person may, without a permit issued by the relevant heritage resources authority:

a. destroy, damage, alter, exhume or remove from its original position of 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 or 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, or any equipment which assists in the detection or recovery of metals.

Human remains that are less than 60 years old are subject to provisions of the Human Tissue Act (Act 65 of 1983) and to local regulations. Exhumation of graves must conform to the standards set out in the **Ordinance on Excavations** (**Ordinance no. 12 of 1980**) (replacing the old Transvaal Ordinance no. 7 of 1925).

Permission must also be gained from the descendants (where known), the National Department of Health, Provincial Department of Health, Premier of the Province and local police. Furthermore, permission must also be gained from the various landowners (i.e. where the graves are located and where they are to be relocated to) before exhumation can take place.

Human remains can only be handled by a registered undertaker or an institution declared under the **Human Tissues Act** (Act 65 of 1983 as amended).

# **3.2 The National Environmental Management Act**

This act states that a survey and evaluation of cultural resources must be done in areas where development projects, that will change the face of the environment, will be undertaken. The impact of the development on these resources should be determined and proposals for the mitigation thereof are made.

Environmental management should also take the cultural and social needs of people into account. Any disturbance of landscapes and sites that constitute the nation's cultural heritage should be avoided as far as possible and where this is not possible the disturbance should be minimized and remedied.

### 4. METHODOLOGY

### **4.1** Survey of Literature

A survey of available literature was undertaken in order to place the development area in an archaeological and historical context. The sources utilized in this regard are indicated in the bibliography.

### **4.2** Field Survey

The field assessment section of the study is conducted according to generally accepted HIA practices and aimed at locating all possible objects, sites and features of heritage significance in the area of the proposed development. The location/position of all sites, features and objects is determined by means of a Global Positioning System (GPS) where possible, while detailed photographs are also taken where needed. The survey was done on foot and vehicle.

### **4.3** Oral Histories

People from local communities are sometimes interviewed in order to obtain information relating to the surveyed area. It needs to be stated that this is not applicable under all circumstances. When applicable, the information is included in the text and referred to in the bibliography.

# 4.4 Documentation

All sites, objects, features and structures identified are documented according to a general set of minimum standards. Co-ordinates of individual localities are determined by means of the Global Positioning System (GPS). The information is added to the description in order to facilitate the identification of each locality.

# 5. DESCRIPTION OF THE AREA

APelser Archaeological Consulting (APAC) was appointed by Maxim Planning Solutions to undertake a Cultural Heritage Resources Impact Assessment in respect of proposed township establishment (Kathu Extension) on Portions 1 & 2 of the farm Kalahari Gholf & Jag Landgoed 775 in the Gamagara Local Municipality (Kathu) of the Northern Cape Province.

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The topography of the study area is basically flat, with few if any rocky outcrops. The vegetation cover consists of low shrubs and thorn trees and very little grass cover. The area is characterized by stretches of white and red sands (Aeolian) and calcrete outcrops. An old dry streambed runs roughly from east to west through the area, while a section of the old (tarred) Sishen-Kuruman road from north to south on the eastern side of the area. The old (now dysfunctional) Khai Appel Recreational Resort/Caravan Park is located on its western boundary, while new residential (township) developments are found on its eastern boundary. A number of old dry pans are located in the area, as well as recent quarries for various materials in some areas. A small section close its eastern boundary has also been recently cleared of trees. The area is however not heavily disturbed by past agricultural activities and rural/urban developments. The Sishen Iron Mine is located a few kilometers to the south of the area.



Fig.1: General location of study area (Google Earth 2018).



Fig.2: Closer view of study area (Google Earth 2018).



Fig.3: A view of the study area.



Fig.4: Another general view of the area.



Fig.5: A view of the old Sishen-Kuruman Road that runs through a part of the area.



Fig.6: Another view showing the open nature of the study area, as well as the red sands and calcrete.



Fig.7: More of the characteristic red aeolian sands in some sections.



Fig.8: Part of the dry streambed in the area. Note the calcrete again.



Fig.9: Another view of a section of the study area.



Fig.10: A dry pan in the study area.

# 6. **DISCUSSION**

The Stone Age is the period in human history when lithic (stone) material was mainly used to produce tools. In South Africa the Stone Age can be divided basically into three periods. It is however important to note that dates are relative and only provide a broad framework for interpretation. A basic sequence for the South African Stone Age (Lombard et.al 2012) is as follows:

Earlier Stone Age (ESA) up to 2 million – more than 200 000 years ago Middle Stone Age (MSA) less than 300 000 – 20 000 years ago Later Stone Age (LSA) 40 000 years ago – 2000 years ago

It should also be noted that these dates are not a neat fit because of variability and overlapping ages between sites (Lombard et.al 2012: 125).

No known Stone Age sites or artifacts are present in the study area. According to David Morris of the McGregor Museum in Kimberley the archaeology of the Northern Cape is rich and varied, covering long spans of human history. The Karoo is particularly bountiful. Some areas are richer than others, and not all sites are equally significant. The significance of sites encountered in the study area may be assessed against previous research in the region and subcontinent. The region's remoteness from research institutions accounts for a relative lack of archaeological research in the area. The area has probably been relatively marginal to human settlement for most of its history, yet it is in fact exceptionally rich in terms of Stone Age sites and rock art, as a relatively few but important studies have shown (Morris 2006).

Stone Age sites are known to occur in the larger geographical area, including the well-known Wonderwerk Cave in the Kuruman Hills, Tsantsabane, an ancient specularite working on the eastern side of Postmasburg, Doornfontein, another specularite working north of Beeshoek and a cluster of important Stone Age sites near Kathu. Additional specularite workings with associated Ceramic Later Stone Age material and older Fauresmith sites (early Middle Stone Age) are known from Lylyfeld, Demaneng, Mashwening, King, Rust & Vrede, Paling, Gloucester and Mount Huxley to the north. Rock engraving sites are known from Beeshoek and Bruce (Morris 2005: 3).

The Kathu Archaeological Complex is a cluster of significant archaeological, principally Stone Age, exposures situated in and near Kathu, a mining town in the Northern Cape Province, South Africa. The sites include a suite of sinkhole exposures, the Kathu Pan sites, north west of the town, the immensely rich spread of artifacts at what is referred to as Kathu Townlands on the eastern side of Kathu (now surrounded by urban development), and surface and subsurface horizons including handaxes on farms further eastward. These are subject to on-going archaeological research.

At Kathu Pan, north-west of the town, evidence of early hominin occupation has been observed at multiple sinkhole sites within the pan. The locality known as Kathu Pan 1 has Earlier Stone Age deposits (Stratum 4b) characterized by well-made handaxes. Above it, Stratum 4a is dated by a combination of OSL and ESR/U-series dating to circa 500 000 years Before Present. The stone artifact assemblage from Stratum 4a is characterized by a prepared core technology that produced both blades and points, and has been attributed to the Fauresmith industry.

In a paper published in Science in November 2012, Jayne Wilkins and colleagues reveal evidence of 500 000 year-old stone points (excavated by Peter Beaumont in 1979-1982), argued to represent the earliest stone-tipped spears yet found. This conclusion, based partly on experimental comparison of use wear, is taken to indicate that human ancestors used stone-tipped weapons for hunting 200 000 years earlier than previously thought. Wilkins is quoted as saying that "the find does more than simply extend the prehistory of stone-tipped spears – it puts those first spears firmly in the hands of Homo heidelbergensis. Modern foragers use such tools to take down large game as part of cooperative, strategic hunts. Perhaps our ancestor did so too".

The above section was taken from Wikipedia.

# A large number of stone tools (scattered and denser localities/sites) were identified during the assessment of the study area.

The Iron Age is the name given to the period of human history when metal was mainly used to produce artifacts. In South Africa it can be divided in two separate phases (Bergh 1999: 96-98), namely:

Early Iron Age (EIA) 200 – 1000 A.D. Late Iron Age (LIA) 1000 – 1850 A.D.

Huffman (2007: xiii) indicates that a Middle Iron Age should be included. His dates, which are widely accepted in archaeological circles, are:

Early Iron Age (EIA) 250 – 900 A.D. Middle Iron Age (MIA) 900 – 1300 A.D. Late Iron Age (LIA) 1300 – 1840 A.D. The expansion of early farmers, who, among other things, cultivated crops, raised livestock, made ceramic containers (pots), mined ore and smelted metals, occurred in this area between AD 400 and AD 1100 and brought the Early Iron Age (EIA) to South Africa. They settled in semi-permanent villages (De Jong 2010: 35).

While there is some evidence that the EIA continued into the 15th century in the South African Lowveld, on the escarpment it had ended by AD1100. The Highveld became active again from the 15th century onwards due to a gradually warmer and wetter climate. From here communities spread to other parts of the interior. This later phase, termed the Late Iron Age (LIA), was accompanied by extensive stonewalled settlements, such as the Thlaping capital Dithakong, 40 km north of Kuruman (De Jong 2010: 35-36).

Sotho-Tswana and Nguni societies, the descendants of the LIA mixed farming communities, found the region already sparsely inhabited by the Late Stone Age (LSA) Khoisan groups, the so-called 'first people'. Most of them were eventually assimilated by LIA communities and only a few managed to survive, such as the Korana and Griqua. This period of contact is sometimes known as the Ceramic Late Stone Age and is represented by the Blinkklipkop specularite mine near Postmasburg and finds at the Kathu Pan (De Jong 2010: 36).

#### No Iron Age sites, features or objects were found during the survey.

Factors such as population expansion, increasing pressure on natural resources, the emergence of power blocs, attempts to control trade and penetration by Griquas, Korana and white communities from the south-west resulted in a period of instability in Southern Africa that began in the late 18th century and effectively ended with the settlement of white farmers in the interior. This period, known as the difaqane or Mfecane, also affected the Northern Cape Province, although at a relatively late stage compared to the rest of Southern Africa.

Here, the period of instability, beginning in the mid-1820s, was triggered by the incursion of displaced refugees associated with the Tlokwa, Fokeng, Hlakwana and Phuting tribal groups. The difaqane coincided with the penetration of the interior of South Africa by white traders, hunters, explorers and missionaries. The first was PJ Truter's and William Somerville's journey of 1801, which reached Dithakong at Kuruman. They were followed by Cowan, Donovan, Burchell and Campbell and resulted in the establishment of a London Mission Society station near Kuruman in 1817 by James Read.

The Great Trek of the Boers from the Cape in 1836 brought large numbers of Voortrekkers up to the borders of large regions known as Bechuanaland and Griqualand West, thereby coming into conflict with many Tswana groups and also the missionaries of the London Mission Society. The conflict between Boer and Tswana communities escalated in the 1860s and 1870s when the Korana and Griqua communities became involved and later also the British government. The conflict mainly centered on land claims by various communities. For decades the western border of the Transvaal Boer republic was not fixed. Only through arbitration (the Keate Arbitration), triggered by the discovery of gold at Tati (1866) and diamonds at Hopetown (1867) was part of the western border finally determined in 1871. Ten years later, the Pretoria Convention fixed the entire western border, thereby finally excluding Bechuanaland and Griqualand West from Boer domination (De Jong 2010: 36).

Kathu is a town in South Africa, and the iron ore capital of the Northern Cape Province. Its name means "town under the trees", after the Camel Thorn forest it is situated in. The phrase "the town under the trees" was coined by an engineer working in the town in the early-1990s as part of a tourist marketing drive, together with the accompanying graphic. It was intended to be a marketing slogan. The meaning of the word "Kathu" has been attributed to a porridge brewed by the local population from the powder found in the pods of the Camel Thorn trees. Kathu was founded in the late 1960's/early 1970's (www.wikipedia.org.za).

The Camel Thorn tree Acacia Erioloba forest is one of only two in the world with the other being between Mariental and Rehoboth in Namibia. Its unique nature was recognized in the early-1920s when it was declared a State Forest. In 1995 it was registered as a Natural Heritage Site. The Kathu forest is approximately 4000 hectares in size and these Camel thorns trees provide support for large Sociable Weaver's nests and are used by many other bird and animal species. In fact surveys has shown a moderate to high diversity in animal and plant species, including several Red Data, endemic and protected species in and around the forest. Bigger trees in the forest are reckoned to be older than 300 years (www.wikipedia.org.za).

The town and the accompanying industrial area of Sishen came into being because of iron ore mining activity in the Kalahari - it has one of the five largest open-cast iron ore mining operations in the world. The primary drilling and 'load and haul' mining equipment used by the mine include giant ore trucks that bear about 260 ton of ore with each load. Mining shovels used to load these trucks can weigh in excess of 800 tons and drilling equipment includes drills that can drill up to 400 mm holes for blasting purposes. Some of the world's longest ore trains travel through harsh territory on the Sishen-Saldanha railway to offload their cargo at Saldanha Bay. Kumba Iron Ore is the principal mine operator in Kathu (www.wikipedia.org.za).

# A grave site containing around 12 to 15 graves were found in the area during the assessment.

The oldest map for the farm (study area) from the Chief Surveyor General's database (<u>www.csg.dla.gov.za</u>) dates to 2006. It shows that the farm was surveyed in January 2006 (CSG Document 10054004). No historical sites or features are shown on this map however.



Fig.11: 2006 Map of the farm & study area (www.csg.dla.gov.za).

### **Results of the January 2018 Fieldwork**

A total of 9 sites were found during the assessment of the area, with 8 of these Stone Age and 1 a recent historical grave site. Three (3) of the Stone Age sites are actually found around the old Sishen-Kuruman tar road periphery/in the road reserve and on the surface of a smaller graded dirt road in the area and the Tar Road material might come from a secondary source. This will be discussed later on in this discussion section. Furthermore, the number of sites and finds dating to the Stone Age might be more than those identified and recorded during the assessment, as it is clear that the area could contain many more similar sites and scatters of material of varying density throughout. This aspect will also be discussed in more detail later. The old streambed that runs in the area also contained some scattered tools from the MSA/LSA, but the whole section was not walked and therefore the whole streambed section will be indicated as a potential area for the presence of Stone Age sites.

# Sites 1, 2, 5 & 6 – Stone Age Surface finds along old Sishen-Kuruman Tar Road; Dirt Road & Old Streambed.

Sites 1 & 2 are very close to each other and are situated next to the old tar road and in the road reserve. Stone tools are scattered amongst gravel used for the road construction and include cores, handaxes, possible choppers, broken blades, flakes and waste. When the rest of the tar road section was assessed it became clear that these types of tools are located only

close to and in the road reserve (an approximately 15m section both sides). Beyond that hardly any material occurs. It is highly likely that this Stone Age material comes from a secondary source (i.e a quarry from which the road building material was sourced) and is not in situ (knapping sites). However, the range of material found here makes the "road site" relatively significant and if the road is to be impacted (re-used/removed) then it is recommended that possible surface sampling of representative material is undertaken. The source of the material should also be traced and the Stone Age material mapped along the road.

Site 5 is located along another road in the study area. This is a dirt road that has been graded through a section of red aeolian sands and MSA & LSA artifacts (scrapers, blades, flakes) have been exposed in the road and next to it. The area around the road (in the red sands) most likely also contain scatters of tools that will be exposed eventually through natural erosion and care should be taken should development occur here that if material is uncovered an expert be called in to investigate.

Site 6 is located in the old dry streambed in the area. Scattered/individual Stone tools are found throughout the area. The material has been heavily rolled (water working) and includes MSA/LSA flakes, blades, scrapers and other artifacts. It is recommended that the streambed area be avoided by the development.

**GPS Location of Sites:** S27 41 13.40 E23 01 36.90 (1); S27 41 12.80 E23 01 37.00 (2); S27 40 27.90 E23 01 49.00 (5); whole streambed (see Google Image with sites)

Cultural Significance: Medium to High.

**Heritage Significance**: Grade III: Other Heritage resources of local importance and therefore worthy of conservation

**Field Ratings**: General protection A (IV A): Site should be mitigated before destruction (High/Medium significance)

Mitigation: See above.

### Sites 3, 4, 8 & 9 – Stone Age surface sites

Sites 3, 4, 8 & 9 are all surface sites containing single or denser scatter of MSA/LSA tools (blades, scrapers, cores, flakes and waste) on them. One of these sites (Site 9) falls outside the footprint of study area and is located in an old dry pan area. There might be similar sites in the study area that were however missed during this assessment.

It is highly likely that many more similar surface sites and scatters of Stone Age material are located in the study area but might not be visible at this current stage. Material is covered by the red aeolian sands and will erode out over time. It is therefore also possible that development actions could uncover more sites and material. It is recommended that a more detailed mapping and assessment of the Stone Age of the study area be undertaken.

**GPS Location of Sites:** S27 41 25.60 E23 01 55.40 (3); S27 40 35.50 E23 01 57.00 (4); S27 40 02.70 E23 00 55.70 (8); S27 39 56.20 E23 01 11.80 (9)

**Cultural Significance**: Low – Medium.

**Heritage Significance**: Grade III: Other Heritage resources of local importance and therefore worthy of conservation

**Field Ratings**: General protection B (IV B): Site should be recorded before destruction (Medium significance) **Mitigation**: See above.

#### Site 7 – Grave Site

This site is located close to the fence with the Khai Appel Resort/Caravan Park and contains between 12 and 15 graves. Most of the graves are stone-packed and with cement borders, while a few have cement headstones with inscriptions. Three individuals could be identified and includes (1) Beney Konieng who was born in April 1959 and died on 5 April 1960; (2) Mrs. Ross Hugo who died on the 20<sup>th</sup> of October 1961 and (3) Mrs. L. Sebego who was born in 1889 and died in 1965.

Graves always carry a High Cultural Significance rating and should not be impacted if possible and be left intact. If the site cannot be avoided then the graves can be exhumed and relocated after all due processes (social consultation/getting consent/permits have been obtained) have been successfully completed. The best would be however to keep the site fenced-off and protected.

**GPS Location of Sites:** S27 40 34.60 E23 00 52.70

Cultural Significance: High.

Heritage Significance: Grade III: Other Heritage resources of local importance and therefore worthy of conservation

**Field Ratings**: Local Grade IIIB: should be included in the heritage register and may be mitigated (High/medium significance)

Mitigation: See above.

It should be noted that although all efforts were made to cover the total area and therefore to identify all possible sites or features of cultural (archaeological and/or historical) heritage origin and significance, that there is always the possibility of something being missed. This aspect should be kept in mind when development work commences and if any sites (incl. unmarked graves) are identified then an expert should be called in to investigate and recommend on the best way forward.



Fig.12: A view of Site 1.



Fig.13: Site 2.



Fig.14: Hand axe in the area around Site 1.



Fig.15: Another stone tool from Site 1.



Fig.16: Another hand axe found along the old tarred road section.



Fig.17: A view of a section of the old Sishen-Kuruman Road in the study area. Stone tools are found along the edge of the road and in the reserve on both sides.



Fig.18: MSA/LSA tools from Site 4.



Fig.19: The graded road where Site 5 is located. Stone tools are found scattered in and along this road.



Fig.20: One of the stone tools from Site 5.



Fig.21: A view of a section of the dry streambed in the area (Site 6). Stone tools are found scattered throughout this streambed.



Fig.22: Some weathered/rolled tools from the streambed.



Fig.23: A view of Grave Site 7.



Fig.24: A view of one of the graves on Site 7.



Fig.25: Close-up of the headstone.



Fig.26: More graves on Site 7 with headstones.



Fig.27: Close-up of another grave's headstone.



Fig.28: The grave of Mrs. L. Sebego.



Fig.29: Another view of Site 7 & some stone-packed graves here.



Fig.30: Stone tools from Site 8.



Fig.31: A view of the Site 8 location.



Fig.32: The Site 9 dry pan location.



Fig.33: Some of the Site 9 artifacts.



Fig.34: A blade & scraper from Site 9.



Fig.35: Aerial view of study area (red polygon) & Sites found. The old tarred road between Sishen & Kuruman is demarcated in black; while the dry streambed has been demarcated in blue and the Site 5 road in yellow (Google Earth 2018).

### 7. CONCLUSIONS AND RECOMMENDATIONS

APelser Archaeological Consulting (APAC) was appointed by Maxim Planning Solutions to undertake a Cultural Heritage Resources Impact Assessment in respect of proposed township establishment (Kathu Extension) on Portions 1 & 2 of the farm Kalahari Gholf & Jag Landgoed 775 in the Gamagara Local Municipality (Kathu) of the Northern Cape Province.

The project is conducted on instruction from Barzani Development (Pty) Ltd. A number of known cultural heritage sites (archaeological and/or historical) exist in the larger geographical area within which the study area falls. There are no known sites on the specific land parcel, although some archaeological material & historical sites were identified during the assessment in January 2018.

A total of 9 sites were found during the assessment of the area, with 8 of these Stone Age and 1 a recent historical grave site. Three (3) of the Stone Age sites are located around the old Sishen-Kuruman tar road periphery/in the road reserve and on the surface of a smaller graded dirt road in the area. The tar road material might come from a secondary source. The number of sites and finds dating to the Stone Age might be more than those identified and recorded during the assessment, as it is clear that the area could contain many more similar sites and scatters of material of varying density throughout. The old streambed that runs in the area also contained some scattered tools from the MSA/LSA, but the whole section was not walked and therefore the whole streambed section is a potential area for the presence of Stone Age sites.

Sites 1 & 2 are located in close proximity to each other and are situated next to the old tar road and in the road reserve. Stone tools are scattered amongst gravel used for the road construction and include cores, handaxes, possible choppers, broken blades, flakes and waste. When the rest of the tar road section was assessed it became clear that these types of tools are located only close to and in the road reserve (an approximately 15m section both sides). Beyond that hardly any material occurs. It is highly likely that this Stone Age material comes from a secondary source (i.e. a quarry from which the road building material was sourced) and is not in situ. The range of material found here makes the "road site" relatively significant and if the road is to be impacted (re-used/removed) then it is recommended that possible surface sampling of representative material is undertaken. The source of the material should also be traced and the Stone Age material mapped along the road.

Site 5 is located along another road in the study area. This is a dirt road that has been graded through a section of red aeolian sands and MSA & LSA artifacts (scrapers, blades, flakes) have been exposed in the road and next to it. The area around the road (in the red sands) most likely also contain scatters of tools that will be exposed eventually through natural erosion and care should be taken should development occur here that if material is uncovered an expert be called in to investigate.

Site 6 is located in the old dry streambed in the area. Scattered/individual Stone tools are found throughout the area. The material has been heavily rolled (water working) and includes MSA/LSA flakes, blades, scrapers and other artifacts. *It is recommended that the streambed area be avoided by the development*. Sites 3, 4, 8 & 9 are all surface sites containing single or denser scatter of MSA/LSA tools (blades, scrapers, cores, flakes and waste) on them. One of these sites (Site 9) falls outside the footprint of study area and is located in an old dry pan area.

It is highly likely that many more similar surface sites and scatters of Stone Age material are located in the study area but might not be visible at this current stage. Material is

### covered by the red aeolian sands and will erode out over time. It is therefore also possible that development actions could uncover more sites and material. It is recommended that a more detailed mapping and assessment of the Stone Age of the study area be undertaken.

The Site 7 graveyard is located close to the fence with the Khai Appel Resort/Caravan Park and contains between 12 and 15 graves. Most of the graves are stone-packed and with cement borders, while a few have cement headstones with inscriptions. Three individuals could be identified and includes (1) Beney Konieng who was born in April 1959 and died on 5 April 1960; (2) Mrs. Ross Hugo who died on the 20th of October 1961 and (3) Mrs. L. Sebego who was born in 1889 and died in 1965. *Graves always carry a High Cultural Significance rating and should not be impacted if possible and be left intact. If the site cannot be avoided then the graves can be exhumed and relocated after all due processes (social consultation/getting consent/permits have been obtained) have been successfully completed. The best would be however to keep the site fenced-off and protected.* 

Finally, it should be noted that although all efforts are made to locate, identify and record all possible cultural heritage sites and features (including archaeological remains) there is always a possibility that some might have been missed as a result of grass-cover and other factors. The subterranean nature of these resources (including low stone-packed or unmarked graves) should also be taken into consideration. Should any previously unknown or invisible sites, features or material be uncovered during any development actions then an expert should be contacted to investigate and provide recommendations on the way forward.

From a cultural heritage point of view the development can therefore continue, taking cognizance of the above recommendations.

### 8. **REFERENCES**

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#### APPENDIX A DEFINITION OF TERMS:

**Site**: A large place with extensive structures and related cultural objects. It can also be a large assemblage of cultural artifacts, found on a single location.

**Structure**: A permanent building found in isolation or which forms a site in conjunction with other structures.

Feature: A coincidental find of movable cultural objects.

**Object**: Artifact (cultural object).

(Also see Knudson 1978: 20).

#### APPENDIX B DEFINITION/ STATEMENT OF HERITAGE SIGNIFICANCE:

**Historic value**: Important in the community or pattern of history or has an association with the life or work of a person, group or organization of importance in history.

Aestetic value: Important in exhibiting particular aesthetic characteristics valued by a community or cultural group.

**Scientific value**: Potential to yield information that will contribute to an understanding of natural or cultural history or is important in demonstrating a high degree of creative or technical achievement of a particular period

**Social value**: Have a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.

Rarity: Does it possess uncommon, rare or endangered aspects of natural or cultural heritage.

**Representivity**: Important in demonstrating the principal characteristics of a particular class of natural or cultural places or object or a range of landscapes or environments characteristic of its class or of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, province region or locality.

#### APPENDIX C SIGNIFICANCE AND FIELD RATING:

#### **Cultural significance:**

- Low: A cultural object being found out of context, not being part of a site or without any related feature/structure in its surroundings.

- Medium: Any site, structure or feature being regarded less important due to a number of factors, such as date and frequency. Also any important object found out of context.

- High: Any site, structure or feature regarded as important because of its age or uniqueness. Graves are always categorized as of a high importance. Also any important object found within a specific context.

#### Heritage significance:

- Grade I: Heritage resources with exceptional qualities to the extent that they are of national significance

- Grade II: Heritage resources with qualities giving it provincial or regional importance although it may form part of the national estate

- Grade III: Other heritage resources of local importance and therefore worthy of conservation

### **Field ratings:**

i. National Grade I significance: should be managed as part of the national estate

ii. Provincial Grade II significance: should be managed as part of the provincial estate

iii. Local Grade IIIA: should be included in the heritage register and not be mitigated (high significance)

iv. Local Grade IIIB: should be included in the heritage register and may be mitigated (high/ medium significance)

v. General protection A (IV A): site should be mitigated before destruction (high/medium significance)

vi. General protection B (IV B): site should be recorded before destruction (medium significance)

vii. General protection C (IV C): phase 1 is seen as sufficient recording and it may be demolished (low significance)

### APPENDIX D PROTECTION OF HERITAGE RESOURCES:

# **Formal protection:**

National heritage sites and Provincial heritage sites – Grade I and II Protected areas - An area surrounding a heritage site Provisional protection – For a maximum period of two years Heritage registers – Listing Grades II and III Heritage areas – Areas with more than one heritage site included Heritage objects – e.g. Archaeological, palaeontological, meteorites, geological specimens, visual art, military, numismatic, books, etc.

#### **General protection:**

Objects protected by the laws of foreign states Structures – Older than 60 years Archaeology, palaeontology and meteorites Burial grounds and graves Public monuments and memorials

#### APPENDIX E HERITAGE IMPACT ASSESSMENT PHASES

1. Pre-assessment or Scoping Phase – Establishment of the scope of the project and terms of reference.

2. Baseline Assessment – Establishment of a broad framework of the potential heritage of an area.

3. Phase I Impact Assessment – Identifying sites, assess their significance, make comments on the impact of the development and makes recommendations for mitigation or conservation.

4. Letter of recommendation for exemption – If there is no likelihood that any sites will be impacted.

5. Phase II Mitigation or Rescue – Planning for the protection of significant sites or sampling through excavation or collection (after receiving a permit) of sites that may be lost.

6. Phase III Management Plan – For rare cases where sites are so important that development cannot be allowed.