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A PHASE 1 HIA REPORT FOR THE LIMESTONE PROSPECTING RIGHTS LOCATED ON VARIOUS FARMS SOUTH-EAST OF KURUMAN, NORTHERN CAPE PROVINCE

For:

ECOPARTNERS PO Box 73513 FAIRLAND 2030

REPORT: APAC020/108

by:

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December 2020

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Although all efforts are made to identify all sites of cultural heritage (archaeological and historical) significance during an assessment of study areas, the nature of archaeological and historical sites are as such that it is always possible that hidden or subterranean sites, features or objects could be overlooked during the study. APELSER Archaeological Consulting can't be held liable for such oversights or for costs incurred as a result thereof.

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SUMMARY

APelser Archaeological Consulting (APAC) was appointed by EcoPartners to conduct a Phase 1 Heritage Impact Assessment (HIA) for the Limestone Prospecting Rights. The project and study area is located south-east of Kuruman in the Northern Cape. The study and application area comprises Portions 10, 15, 18, 41, 46, 48, 49, 56, 61, 65 & 72 of the farm Block AA No.689, Brandziekfontein No.124, Annex Helvetia 125 and Helvetia No.126. The Heritage study was done as part of a condition of a Prospecting Right granted to Associated Lime & Chemicals formerly Bee Safe Now Trade.

A number of known cultural heritage (archaeological and historical) sites exist in the larger geographical area within which the study area falls. A number of new sites were identified and recorded in the study area during the November 2020 field assessment. This report will discuss the results of the field assessment and the desktop work and provide recommendations on the way forward at the end of the document.

It should be noted that not all farm portions could be accessed at the time of the field assessment due to unresolved legal issues between the Prospecting Rights holder and the landowners. Access was therefore not given to the Heritage Specialist and this represents a gap in study.

From a Cultural Heritage perspective it is recommended that the proposed activities be allowed to continue once the recommended mitigation measures put forward at the end of the report has been implemented.

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1. INTRODUCTION

APelser Archaeological Consulting (APAC) was appointed by EcoPartners to conduct a Phase 1 Heritage Impact Assessment (HIA) for the Limestone Prospecting Rights. The project and study area is located south-east of Kuruman in the Northern Cape. The study and application area comprises Portions 10, 15, 18, 41, 46, 48, 49, 56, 61, 65 & 72 of the farm Block AA No.689, Brandziekfontein No.124, Annex Helvetia 125 and Helvetia No.126. The Heritage study was done as part of a condition of a Prospecting Right granted to Associated Lime & Chemicals formerly Bee Safe Now Trade.

A number of known cultural heritage (archaeological and historical) sites exist in the larger geographical area within which the study area falls. A number of new sites were identified and recorded in the study area during the November 2020 field assessment.

The client indicated the location and the boundaries of the study area and the assessment concentrated on this.

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; and
- 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, 1999 (Act No. 25 of 1999) and the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

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 000m² or involve three or more existing erven or subdivisions thereof
- d. Re-zoning of a site exceeding 10 000 m²
- e. Any other category provided for in the regulations of the South African Heritage Resources Agency (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) 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 SAHRA. In order to demolish such a site or structure, a destruction permit from the 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 or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;

- b. destroy, damage, alter, exhume 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
- 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, 1983 (Act No. 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 was conducted according to generally accepted AIA/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 detail photographs are also taken where needed.

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

The study and application area comprises Portions 10, 15, 18, 41, 46, 48, 49, 56, 61, 65 & 72 of the farm Block AA No.689, Brandziekfontein No.124, Annex Helvetia 125 and Helvetia No.126. It is situated south-east of Kuruman in the Northern Cape and in the administrative districts of Kuruman and Barkly-West.

The topography of the area is relatively flat and open, although some ridges and rocky outcrops do occur on parts of it. Vegetation was fairly dense in parts, making visibility on the ground difficult. There are some streams in the area, as well as a number of pans. The area has been used mainly in the past and currently for farming (mainly livestock and game farming). Impacts on the natural landscape have been minimal in the past, and include mostly farming-related activities.

Some sites of cultural heritage origin and significance were identified in the study area during the November 2020 field assessment and will be discussed in detail in the following sections of the report.



Figure 1: General location of the study area (Google Earth 2020).



Figure 2: Closer view of the study area and Prospecting Area footprint (Google Earth 2020).



Figure 3: A general view of one section of the study area.



Figure 4: Rocky outcrops occur in parts of the study area.



Figure 5: One the many pans and wetland areas in the study area.



Figure 6: Another view of the typical landscape in the area.



Figure 7: Another pan and stream in the area.



Figure 8: One of the farmsteads in the area.



Figure 9: Another typical landscape. This picture was taken towards the Wonderwerk Cave area located a few kilometers to the west of the study area.



Figure 10: Farming related structures and farmstead in the area.



Figure 11: Pans are characteristic of sections of 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 basically be divided 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 (**the study area is located a few kilometers to the east and north-east of Wonderwerk Cave**), 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 (including the Kathu Pan sites). 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).

Some Stone Age sites and artifacts were identified and recorded in the study area during the November 2020 assessment.

The Iron Age is the name given to the period of human history when metal was mainly used to produce metal 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) however indicates that a Middle Iron Age should be included. His dates, which now seem to be 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 recent assessment.

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).

Some recent historical sites and features were identified and recorded in the study area in November 2020.

Results of the November 2020 Field Assessment

A number of sites and features of cultural heritage (archaeological and/or recent historical) origin and significance were identified and recorded in the area during the assessment. These included sites dating to the Stone Age (open-air surface scatters and single artifacts), recent historical structures and graves.

It needs to be noted here that a number of farm portions could not be accessed during the fieldwork. This included Portion 48 of Farm Block AA 689, Portion 72 (Groenvlei Trust) and Portion 18. For Portions 48 & 72 legal opinion is being seeked for by the landowners in terms of allowing the Prospecting to continue, while for Portion 18 various attempts were made to organize access without success. These areas have therefore not been covered by the fieldwork and this needs to be kept in mind. It is also quite likely, based on the finds made in the rest of the area, that similar cultural heritage sites as those recorded on other farms, will be located on these portions. The owners of Portion 72 as a matter of fact indicated that there is a family cemetery on the farm (Pers.Comm. Magda Saaiman).

A total of 29 sites were physically recorded during the fieldwork, with the bulk of these dating the Stone Age. Some of the sites are located just outside of the actual application area, but the property owners indicated these areas as the actual farm portions reflected on the application maps. They are therefore included in the report. It also needs to be noted that the survey was done by using existing dirt roads and tracks within the areas the specialist was allowed to access. The work was done by vehicle and on foot and areas of interest such as erosion dongas/trenches, unnatural looking clumps of trees/vegetation, rocky outcrops and pans were focused on.

Stone Age Sites

Twenty-two (22) Stone Age sites (Sites 1-4, 7, 9-10, 12-15, 17, 19 & 21-29) were recorded. One of these was a possible engraving on a rocky outcrop. Most of the sites consist of openair surface scatters of Stone tools of varying density, from single objects to concentrations of material. Many of these are located close to the rocky outcrops found in parts of the study area and near and around the various pans found here. Some of the denser scatters of material include cores, waste flakes and flake tools such as scrapers ad broken blades and could represented knapping (stone tool manufacturing sites). As such mitigation measures are required (see below). It should also be noted that there could be many more such sites in the area, and that it would be impossible to have recorded all of the occurrences in such a large area. Many sites and deposits could also be covered by the soil and sand found in the area, as is shown at Site 15 (see images below). The rock engraving is of particular importance and although only 1 was found there could be many more located here that were not visible. Another engraving site dating to more recent historical times were also recorded in another section of the study area.

It is recommended that once the prospecting activities commence that detailed recording of the Stone Age sites in the area be undertaken. The exact location of prospecting trenches and boreholes, as well as any future infrastructure development related to this, will then have to be assessed to determine its impacts on the archaeological and other heritage sites in the study area. It is also recommended that the future prospecting avoid the rocky ridges and outcrops and pans where these sites are situated. If this is not possible then archaeological mitigation measures will have to be implemented.

These mitigation measures need to be implemented prior to any prospecting and future mining activities being undertaken in this area.

GPS Location of Sites: S27 41 03.30 E23 42 33.10 (**Site 1**); S27 42 00.90 E23 42 34.80 (**Site 2**) S27 41 54.70 E23 42 36.30 (**Site 3**); S27 41 53.40 E23 42 39.40 (**Site 4**); S27 41 30.10 E23 42 44.20 (**Site 7**); S27 41 49.90 E23 43 04.50 (**Site 9**); S27 42 21.80 E23 42 31.20 (**Site 10**); S27 42 23.40 E23 42 37.70 (**Site 12 – engraving**); S27 42 25.20 E23 42 35.50 (**Site 13**); S27 42 37.10 E23 42 28.70 (**Site 14**); S27 42 50.70 E23 42 14.30 (**Site 15**); S27 50 34.60 E23 42 45.80 (**Site 17**); S27 50 55.90 E23 43 22.30 (**Site 19**); S27 45 51.70 E23 40 52.10 (**Site 21**); S27 45 59.20 E23 40 53.20 (**Site 22**); S27 46 04.80 E23 40 52.40 (**Site 23**); S27 46 23.80 E23 40 30.60 (**Site 24**); S27 47 36.00 E23 44 54.10 (**Site 25**); S27 47 41.60 E23 44 43.10 (**Site 26**); S27 47 51.90 E23 44 37.00 (**Site 27**); S27 47 56.80 E23 46 22.50 (**Site 28**); S27 47 06.90 E23 46 02.60 (**Site 29**).

Cultural Significance: Medium - 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 recommended measures.



Figure 12: Some of the stone tools at Site 1.



Figure 13: The general location of Site 1.



Figure 14: Site 2.



Figure 15: Site 3.



Figure 16: Stone tools from Site 4.



Figure 17: Site 7.



Figure 18: Stone tools from Site 9.



Figure 19: The engraving at Site 12.



Figure 20: Some of the stone tools at Site 13.



Figure 21: The area close to Sites 12 & 13.



Figure 22: Most of the sites in the study area are located close to outcrops and pans/water courses. This is the location of Site 14.



Figure 23: Location of Site 15 in diggings.



Figure 24: Stone Age material in the diggings/trench. The material is found below the present surface level and on top of the calcrete.



Figure 25: Site 17.



Figure 26: Stone tools from Site 22.



Figure 27: Site 23 stone tools.



Figure 28: The location of Site 25.



Figure 29: Some stone tools from Site 26.



Figure 30: Site 27 is again located next to and around a pan.



Figure 31: Stone tools from Site 28.



Figure 32: The location of Site 29.

Recent Historical Sites

Seven (7) sites of recent historical age were identified in the area. Three of these (Sites 5, 16 & 18) are grave sites/cemeteries, with Site 16 located just outside the study & application area.

Site 5 is a small informal cemetery containing 2 graves. The one is stone-packed without a headstone while the other has a formal cement/concrete covering and slate headstone. This is the grave of one Susanna Elizabeth Terblanche born Van de Venter. She was born in November 1894 and passed away in September 1944. Site 16 is located on Jannie Pretorius's farm and is located close to the road and is not in the direct study area. The site was not visited but seems to contain a single grave (details not recorded). Site 18 contains 2 graves according to the farm workers and is located on Helvetia farm (Basson's Rus). Only one of the graves was visible and had a cement/concrete covering and no headstone. The age of the graves are not known.

There is also a cemetery located on Portion 72 (Groenvlei Trust) but as mentioned earlier for reasons provided the site could not be visited. According to a family member these graves are old (Pers.Comm. Magda Saaiman).

Graves always carry a High Significance Rating from a Heritage perspective. As such care should be taken to avoid these sites and to not impact them negatively in any way. It is recommended that should any future development take place close these sites that they are

properly fenced-in and protected and that a 30m buffer within which no activities are allowed should be implemented. The grave sites and the graves on them should also be included in a Graves Management Plan.

GPS Location of Sites: S27 41 49.20 E23 42 37.40 (**Site 5**); S27 45 15.04 E23 41 10.37 (**Site 16**) S27 50 56.90 E23 42 27.90 (**Site 18**)

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.

Site 6 is represented by the remains of a farm worker homestead of clay bricks and plaster. The age is not known, but it could be older than 60 years of age. Site 8 is represented by the foundations of a structures constructed of clay bricks and stone. The age and function is also unknown. Site 11 is the stone foundations of a structure of which the age is not known, although it could be older than 60 years of age. All of these sites are however not significant and not well preserved. The Phase 1 documentation is seen as sufficient.

Site 20 contains a number of engravings that are seemingly of a recent historical origin. It includes animal (sheep) and human figures, as well as what looks like a tree and letters and a name that is not clearly visible. The age is difficult to determine, but most likely dates to the late 19th/early 20th century as ceramics and glass typical of that time period was found close by to the site. This site should be protected and preserved in situ as far as possible, as it is tangible evidence of the often undocumented history of the area.

GPS Location of Sites: S27 41 42.80 E23 42 40.20 (**Site 6**); S27 41 40.20 E23 42 40.70 (**Site 8**); S27 42 23.00 E23 42 32.40 (**Site 11**); S27 50 48.40 E23 43 49.30 (**Site 20**).

Cultural Significance: Low to High (Site 20)

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.



Figure 33: Site 5 Graves.



Figure 34: Close-up of headstone of Susanna Terblanche's grave at Site 5.



Figure 35: Site 6.



Figure 36: Site 8.



Figure 37: Site 11.



Figure 38: Site 16.



Figure 39: Site 18 grave site.



Figure 40: One of the graves at Site 18.



Figure 41: The engravings at Site 20.



Figure 42: Some of the engravings on Site 20.



Figure 43: More engravings at Site 20.



Figure 43: Late 19th/early 20th century glass and porcelain at Site 20.

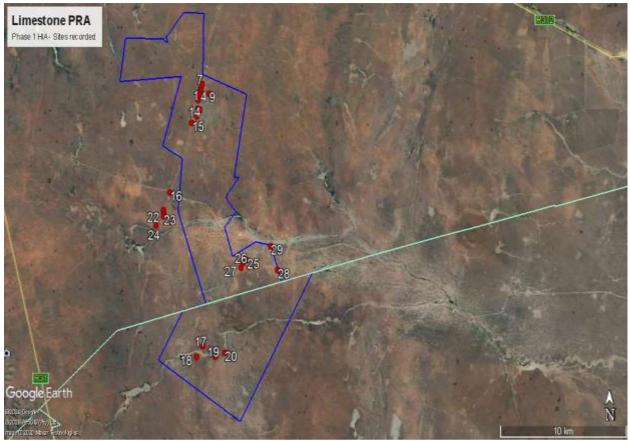


Figure 44: The distribution of the sites found during the assessment of the study area (Google Earth 2020).

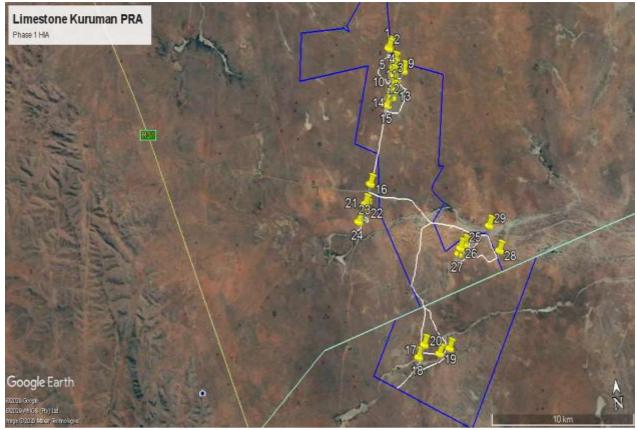


Figure 45: Image showing basic tracks followed during the field assessment (Google Earth 2020).

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.

7. CONCLUSIONS AND RECOMMENDATIONS

APelser Archaeological Consulting (APAC) was appointed by EcoPartners to conduct a Phase 1 Heritage Impact Assessment (HIA) for the Limestone Prospecting Rights. The project and study area is located south-east of Kuruman in the Northern Cape. The study and application area comprises Portions 10, 15, 18, 41, 46, 48, 49, 56, 61, 65 & 72 of the farm Block AA No.689, Brandziekfontein No.124, Annex Helvetia 125 and Helvetia No.126. The Heritage study was done as part of a condition of a Prospecting Right granted to Associated Lime & Chemicals formerly Bee Safe Now Trade.

A number of known cultural heritage (archaeological and historical) sites exist in the larger geographical area within which the study area falls.

A number of sites and features of cultural heritage (archaeological and/or recent historical) origin and significance were identified and recorded in the area during the assessment. These included sites dating to the Stone Age (open-air surface scatters and single artifacts), recent historical structures and graves.

It needs to be noted here that a number of farm portions could not be accessed during the fieldwork. This included Portion 48 of Farm Block AA 689, Portion 72 (Groenvlei Trust) and Portion 18. For Portions 48 & 72 legal opinion is being seeked for by the landowners in terms of allowing the Prospecting to continue, while for Portion 18 various attempts were made to organize access without success. These areas have therefore not been covered by the fieldwork and this needs to be kept in mind. It is also quite likely, based on the finds made in the rest of the area, that similar cultural heritage sites as those recorded on other farms, will be located on these portions. The owners of Portion 72 as a matter of fact indicated that there is a family cemetery on the farm.

A total of 29 sites were physically recorded during the fieldwork, with the bulk of these dating the Stone Age. Some of the sites are located just outside of the actual application area, but the property owners indicated these areas as the actual farm portions reflected on the application maps. They are therefore included in the report.

Twenty-two Stone Age sites were recorded. One of these was a possible engraving on a rocky outcrop. Most of the sites consist of open-air surface scatters of Stone tools of varying density, from single objects to concentrations of material. Many of these are located close to the rocky outcrops found in parts of the study area and near and around the various pans found here. Some of the denser scatters of material include cores, waste flakes and flake tools such as scrapers ad broken blades and could represented knapping (stone tool manufacturing sites). It should also be noted that there could be many more such sites in the area, and that it would be impossible to have recorded all of the occurrences in such a large area. Many sites and deposits could also be covered by the soil and sand found in the area. The rock engraving is of particular importance and although only 1 was found there could be many more located here that were not visible.

It is recommended that detailed recording of the Stone Age sites in the area be undertaken. The exact location of prospecting trenches and boreholes, as well as any future infrastructure development related to this, will have to be assessed to determine its impacts on the archaeological and other heritage sites in the study area. It is also recommended that the future prospecting avoid the rocky ridges and outcrops and pans where these sites are situated. If this is not possible then archaeological mitigation measures will have to be implemented. These mitigation measures need to be implemented prior to any prospecting and future mining activities being undertaken in this area.

A number of grave sites were also recorded in the area. Graves always carry a High Significance Rating from a Heritage perspective. As such care should be taken to avoid these sites and to not impact them negatively in any way. It is recommended that should any future development take place close these sites that they are properly fenced-in and protected and that a 30m buffer within which no activities are allowed should be

implemented. The grave sites and the graves on them should also be included in a Graves Management Plan.

Four other recent historical sites were also recorded. Three of these are represented by the ruins and foundations of farm worker and other structures and they were not deemed of as of High significance. Site 20 (a recent historical engraving site) has High significance and as such should be preserved and recorded in more detail.

From a Cultural Heritage point of view it is recommended that the proposed Prospecting should be allowed to continue, but that the recommended mitigation measures should be implemented before any work is undertaken. The client (Prospecting Rights holder) has committed to adhere to the prescribed recommendations, as well as to keep the legally accepted distance away from any heritage sites, features and structures when they plan and execute their prospecting and drilling exercises.

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.

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.

Aesthetic 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.