



Archaetnos Culture & Cultural  
Resource Consultants  
BK 98 09854/23

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**A REPORT ON A CULTURAL HERITAGE IMPACT ASSESSMENT FOR A  
PROPOSED MINING RIGHTS APPLICATION ON THE FARMS FOLMINK 331,  
KLOOFFONTEIN 332, MIDDELWATER 18 AND FARM 597, CLOSE TO PRIESKA,  
NORTHERN CAPE PROVINCE**

For:

***ALS Mining  
57 Kenilworth Road  
De Beers  
Kimberley  
8301***

**REPORT NO.: AE01831V**

By:

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***26 June 2018***

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## **SUBMISSION OF REPORT**

**Please note that the South African Heritage Resources Agency (SAHRA) or one of its subsidiary bodies needs to comment on this report.**

**It is the client's responsibility to do the submission via the SAHRIS System on the SAHRA website.**

**Clients are advised not to proceed with any action before receiving the necessary comments from SAHRA.**

## **DISCLAIMER**

**Although all possible care is taken to identify all sites of cultural importance during the survey of study areas, the nature of archaeological and historical sites is as such that it always is possible that hidden or subterranean sites could be overlooked during the study. Archaetnos and its personnel will not be held liable for such oversights or for costs incurred as a result thereof.**

**Should it be necessary to visit a site again as a result of the above mentioned, an additional appointment is required.**

**Reasonable editing of the report will be done upon request by the client if received within 60 days of the report date. However, editing will only be done once, and clients are therefore requested to send all possible changes in one request. Any format changes or changes requested due to insufficient or faulty information provided to Archaetnos on appointment, will only be done by additional appointment.**

**Any changes to the scope of a project will require an additional appointment.**

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## EXECUTIVE SUMMARY

### Purpose:

Archaetnos cc was requested by ALS Mining to conduct a cultural heritage impact assessment (HIA) for a proposed mining right application on the farms Folmink 331, Klooffontein 332, Middelwater 18 and Farm 597. This is close to the town of Prieska in the Northern Cape Province. Prieska falls within the Hay District of the Northern Cape Province.

The heritage study forms part of an Environmental Authorisation Process. This report is the result of the HIA study.

### Project description:

The proposed activities include bulk sampling activities, that will include drilling and invasive prospecting pits.

### Methodology:

The methodology for the study includes a survey of literature followed by a field assessment. The latter was conducted according to generally accepted HIA practices and was aimed at locating all possible objects, sites and features of cultural significance in the area of proposed development.

If required, the location/position of any site was determined by means of a Global Positioning System (GPS), while photographs were also taken where needed. The survey was undertaken by doing a physical survey via off-road vehicle and on foot and covered as much as possible of the area to be studied. Certain factors, such as accessibility, density of vegetation, etc. may however influence the coverage.

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

### Public consultation:

Public consultation is done by the Environmental Practitioner.

### Findings:

During the survey six sites of cultural heritage significance were identified.

The following is recommended:

- The farm Middelwater 18 could not be surveyed, since access was not allowed. Therefore no mining or prospecting activities may be undertaken here until such time as an HIA has been done.

- Regarding the other three farms, the development may continue, but only after the report had been approved by SAHRA. Since none of the sites are in the area of impact, this report is seen as ample mitigation.
- Sites no. 1, 2, 3, 4 and 6 may be left *in situ*, since it falls outside of the area of impact.
- However, site no. 5 (graves) is regarded as an extremely sensitive site, and although it does not fall within the area of impact, the developer should ensure its protection. Therefore the site should be fenced in, a buffer zone of 20 m kept at all times and a management plan drafted to ensure the sustainable preservation of the graves.
- It should also be noted that the subterranean presence of archaeological and/or historical sites, features or artifacts is always a distinct possibility. Due to the density of vegetation in certain areas it also is possible that some sites may only become known later. Operating controls and monitoring should therefore be aimed at the possible unearthing of such features. Care should therefore be taken when development commences that if any of these are discovered, a qualified archaeologist be called in to investigate the occurrence.
- In this regard the following 'Chance find Procedure' should be followed:
  - *Upon finding any archaeological or historical material all work at the affected area must cease.*
  - *The area should be demarcated to prevent any further work there until an investigation has been completed.*
  - *An archaeologist should be contacted immediately to provide advice on the matter.*
  - *Should it be a minor issue, the archaeologist will decide on future action. Depending on the nature of the find, it may include a site visit.*
  - *SAHRA's APM Unit may also be notified.*
  - *If needed, the necessary permit will be applied for with SAHRA. This will be done in conjunction with the appointed archaeologist.*
  - *The removal of such archaeological material will be done by the archaeologist in lieu of the approval given by SAHRA, including any conditions stipulated by the latter.*
  - *Work on site will only continue after the archaeologist/ SAHRA has agreed to such a matter.*

It is also important to take cognizance that it is the client's responsibility to do the submission of this report via the SAHRIS System on the SAHRA website. No work on site may commence before receiving the necessary comments from SAHRA.

## CURRICULUM VITAE OF SPECIALIST: PROF ANTON CARL VAN VOLLENHOVEN

### Tertiary education

- BA 1986, University of Pretoria
- BA (HONS) Archaeology 1988 (cum laude), University of Pretoria
- MA Archaeology 1992, University of Pretoria
- Post-Graduate Diploma in Museology 1993 (cum laude), University of Pretoria
- Diploma Tertiary Education 1993, University of Pretoria
- DPhil Archaeology 2001, University of Pretoria.
- MA Cultural History 1998 (cum laude), University of Stellenbosch
- Management Diploma 2007 (cum laude), Tshwane University of Technology
- DPhil History 2010, University of Stellenbosch

### Employment history

- *1988-1991*: Fort Klapperkop Military Museum - Researcher
- *1991-1999*: National Cultural History Museum. Work as Archaeologist, as well as Curator/Manager of Pioneer Museum (1994-1997)
- *1999-2002*: City Council of Pretoria. Work as Curator: Fort Klapperkop Heritage Site and Acting Deputy Manager Museums and Heritage.
- *2002-2007*: City of Tshwane Metropolitan Municipality. Work as Deputy Manager Museums and Heritage.
- *August 2007* – present – Managing Director for Archætnos Archaeologists.
- *1988-2003*: Part-time lecturer in Archaeology at the University of Pretoria and a part-time lecturer on Cultural Resources Management in the Department of History at the University of Pretoria.
- *2014*: Part-time lecturer for the Honours degree in Museum Sciences in the Department of History and Heritage Studies at the University of Pretoria
- *2015*: Appointed extraordinary professor in history at the Mafikeng Campus of the Northwest University

### Other

- Published 75 articles in scientific and popular journals on archaeology and history.
- Author and co-author of over 580 unpublished reports on cultural resources surveys and archaeological work. A list of reports can be viewed on [www.archætnos.co.za](http://www.archætnos.co.za)
- Published a book on the Military Fortifications of Pretoria.
- Contributed to a book on Mapungubwe.
- Delivered more than 50 papers and lectures at national and international conferences.
- Member of SAHRA Council for 2003 – 2006.
- Member of the South African Academy for Science and Art.
- Accredited professional member of Association for South African Professional Archaeologists.
- Accredited professional member of the South African Society for Cultural History (Chairperson 2006-2008; 2012-2014).
- Has been editor for the SA Journal of Cultural History 2002-2004.
- Member of the Provincial Heritage Resources Agency, Gauteng's Council.
- Member of Provincial Heritage Resources Agency, Gauteng's HIA adjudication committee (Chairperson 2012-2019).

ASAPA Accreditation number: 166  
SASCH Accreditation number: CH001

### DECLARATION OF INDEPENDENCE

I, Anton Carl van Vollenhoven from Archaetnos, hereby declare that I am an independent specialist within the field of heritage management.

Signed:



Date: 26 June 2018

### LIST OF ACRONYMS:

AIA – Archaeological Impact Assessment  
AMP – Archaeology, Meteorites and Palaeontology unit of SAHRA  
CMP – Cultural Management Plan  
EAP – Environmental Assessment Practitioner  
EIA – Environmental Impact Assessment  
HIA – Heritage Impact Assessment  
PIA – Palaeontological Impact Assessment  
SAHRA – South African Heritage Resources Agency

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## 1. INTRODUCTION

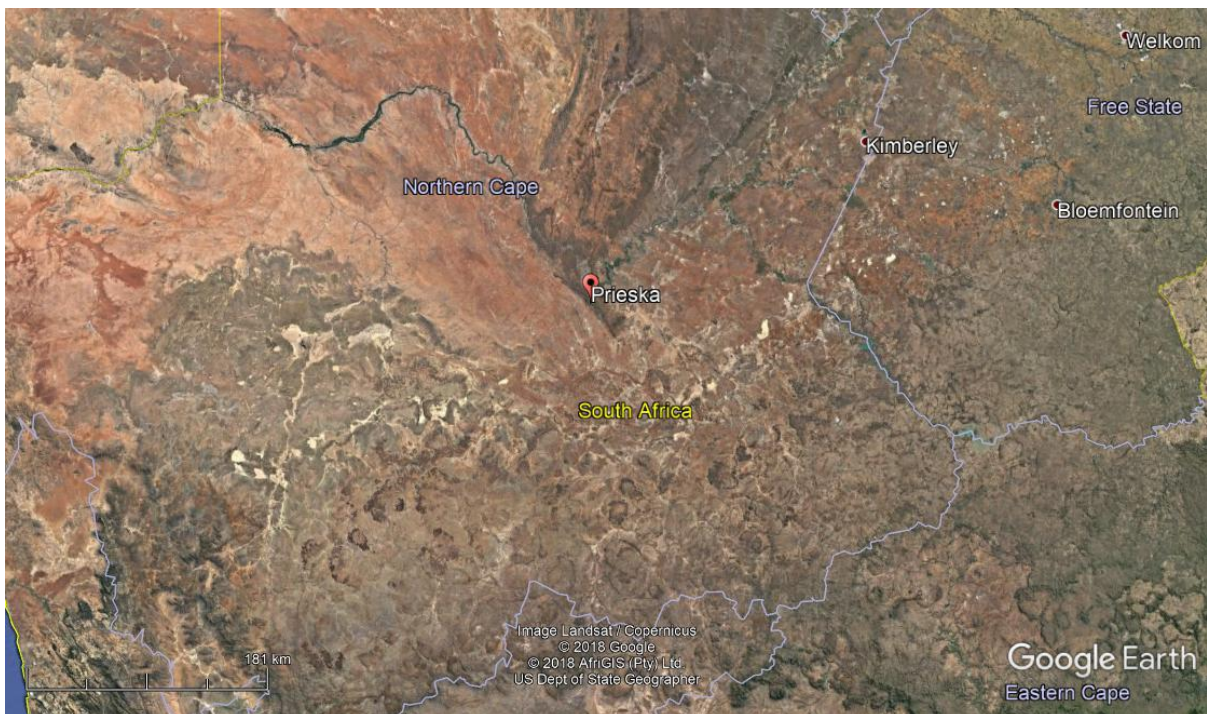
Archaetnos cc was requested by ALS Mining to conduct a cultural heritage impact assessment (HIA) for a proposed mining right application on the following farms:

- portions 2, 4, 6 (a portion of portion 1) and 7 (a portion of portion 1) of the farm Folmink 331
- the remainder of portion 1, portion 2 (a portion of portion 1) and portion 4 of the farm Klooffontein 332
- the remainder of the farm Middelwater 18
- the remainder of Farm 597.

This is close to the town of Prieska in the Northern Cape Province. Prieska falls within the Hay District of the Northern Cape Province (Figure 1-3).

The proposed activities include bulk sampling activities, that will include drilling and invasive prospecting pits.

The heritage study forms part of an Environmental Authorisation Process. This report is the result of the HIA study.

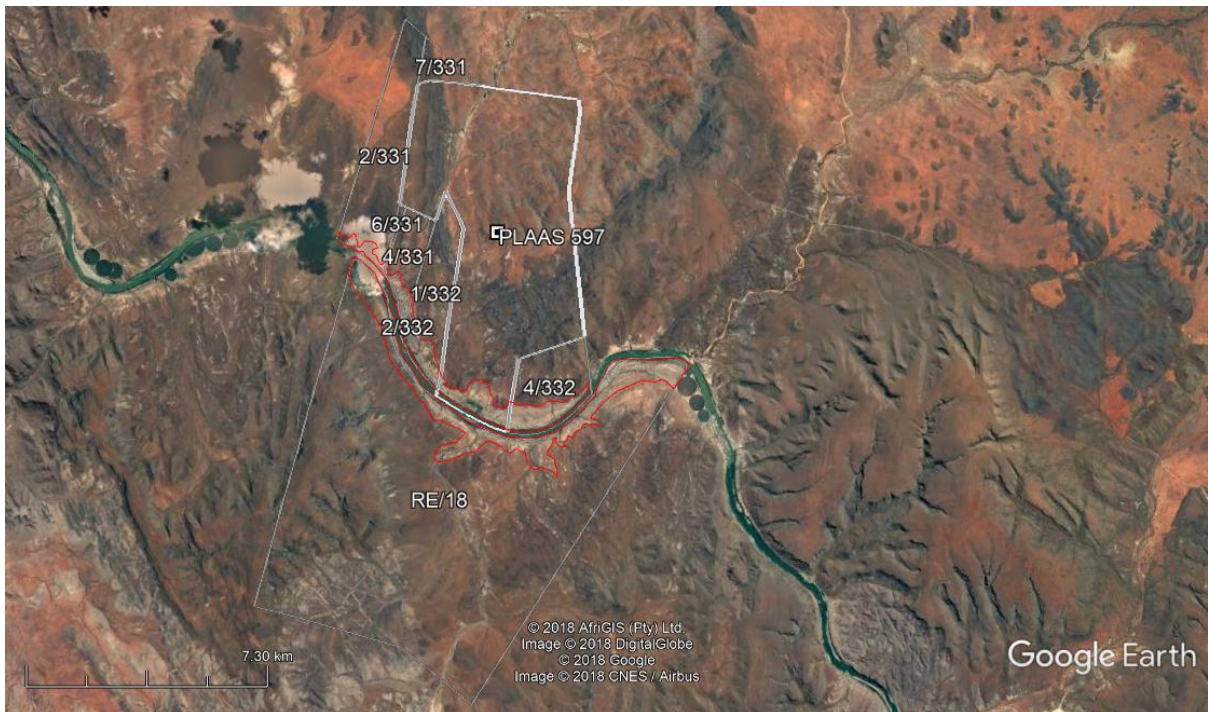


**FIGURE 1: LOCATION OF PRIESKA IN THE NORTHERN CAPE PROVINCE.**





**FIGURE 2: LOCATION OF THE SITE IN RELATION TO PRIESKA.**



**FIGURE 3: DETAIL OF THE PROPOSED MINING AREA. NOTE THE RED DEMARCATION AS AREA OF IMPACT.**

## **2. TERMS OF REFERENCE**

The Terms of Reference for the survey were to:

1. Identify objects, sites, occurrences and structures of an archaeological or historical nature (cultural heritage sites) located on the property (see Appendix A).
2. Document the found cultural heritage sites according to best practice standards for heritage related studies.
3. Study background information on the area to be developed.
4. Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value (see Appendix B).
5. Describe the possible impact of the proposed development on these cultural remains, according to a standard set of conventions.
6. Recommend suitable mitigation measures to minimize possible negative impacts on the cultural resources by the proposed development.
7. Review applicable legislative requirements.

## **3. LEGISLATIVE REQUIREMENTS**

Aspects concerning the conservation of cultural resources are dealt with mainly in two acts. The first of these are the National Heritage Resources Act (Act 25 of 1999) which deals with the cultural heritage of the Republic of South Africa. The second is the National Environmental Management Act (Act 107 of 1998) which inter alia deals with cultural heritage as part of the Environmental Impact Assessment process.

### **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 (see Appendix D) 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. Archaeological and paleontological importance
- g. Graves and burial grounds
- h. Sites of significance relating to the history of slavery
- i. Movable objects (e.g. archaeological, paleontological, 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.

A Palaeontological Impact Assessment (PIA) is an assessment of palaeontological heritage. Palaeontology is a different field of study, and although also sometimes required by the South African Heritage Resources Agency (SAHRA)<sup>1</sup>, should be done by a professional palaeontologist.

The different phases during the HIA process are described in Appendix E. 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 000m<sup>2</sup> or involve three or more existing erven or subdivisions thereof
- d. Re-zoning of a site exceeding 10 000 m<sup>2</sup>
- e. Any other category provided for in the regulations of SAHRA or a provincial heritage authority

### **Structures**

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.

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<sup>1</sup> Please consult SAHRA to determine whether a PIA is necessary.

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 paleontological site or any meteorite;
- b. destroy, damage, excavate, remove from its original position, collect or own any archaeological or paleontological 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 paleontological material or object, or any meteorite; or
- d. bring onto or use at an archaeological or paleontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and paleontological 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). To demolish such a site or structure, a destruction permit from SAHRA will also be needed.

### **Human remains**

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
- 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.

Unidentified/unknown graves are also handled as older than 60 until proven otherwise.

Human remains that are less than 60 years old are subject to provisions of the **National Health Act (Act 61 of 2003)** 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) before exhumation can take place. Human remains can only be handled by a registered undertaker or an institution declared under the **National Health Act (Act 61 of 2003)**.

### **3.2 The National Environmental Management Act**

This Act (Act 107 of 1998) 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.

### **3.3 The International Finance Corporations' performance standard for Cultural Heritage**

This standard recognizes the importance of cultural heritage for current and future generations. It aims to ensure that clients protect cultural heritage in the course of their project activities.

This is done by clients abiding to the law and having heritage surveys done in order to identify and protect cultural heritage resources via field studies and the documentation of such resources. These need to be done by competent professionals (e.g.

archaeologists and cultural historians). Any possible chance finds, encountered during the project development, also needs to be managed by not disturbing it and by having it assessed by professionals.

Impacts on the cultural heritage should be minimized. This includes the possible maintenance of such sites *in situ*, or when not possible, the restoration of the functionality of the cultural heritage in a different location. When cultural historical and archaeological artifacts and structures need to be removed, this should be done by professionals and by abiding to the applicable legislation. The removal of cultural heritage resources may, however, only be considered if there are no technically or financially feasible alternatives. In considering the removal of cultural resources, it should be outweighed by the benefits of the overall project to the affected communities. Again, professionals should carry out the work and adhere to the best available techniques.

Consultation with affected communities should be conducted. This entails that such communities should be granted access to their cultural heritage if this is applicable. Compensation for the loss of cultural heritage should only be given in extra-ordinary circumstances.

Critical cultural heritage may not be impacted on. Professionals should be used to advise on the assessment and protection thereof. Utilization of cultural heritage resources should always be done in consultation with the affected communities in order to be consistent with their customs and traditions and to come to agreements with relation to possible equitable sharing of benefits from commercialization.

## **4. METHODOLOGY**

### **4.1 Survey of literature**

A survey of literature was undertaken in order to obtain background information regarding the area. Sources consulted in this regard are indicated in the bibliography.

### **4.2 Reference to other specialist studies**

One Archaeological Impact Assessment has been done on the farm Middelwater 18 before. None have been done on any of the other farms (SAHRIS database). The town of Prieska lies approximately 40 km south-east of the site and therefore reference to studies there would not really be applicable to the study area.

### **4.3 Public consultation and stakeholder engagement**

This aspect will be dealt with by the Environmental Consultant. It is currently in process and will be undertaken in line with NEMA EIA Regulations.



#### **4.4 Oral histories**

People from local communities are 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. In this case, no interviews were undertaken as part of the HIA. It is assumed that this will be covered during the public consultation undertaken by the Environmental Practitioner.

#### **4.5 Physical field survey**

The survey was conducted according to generally accepted HIA practices and was aimed at locating all possible objects, sites and features of cultural significance in the area of proposed development. One regularly looks a bit wider than the demarcated area, as the surrounding context needs to be taken into consideration.

If required, the location/position of any site was determined by means of a Global Positioning System (GPS)<sup>2</sup>, while photographs were also taken where needed. The survey was undertaken by doing a physical survey via off-road vehicle and on foot and covered as much as possible of the area to be studied (Figure 4).

Certain factors, such as accessibility, density of vegetation, etc. may however influence the coverage. In this instance the under footing was reasonably open, and the vegetation varied between medium and low. Accordingly, both the horizontal and the vertical archaeological visibility was influenced positively. The size of the surveyed area is limited to the area of impact indicated on the above maps, but the entire prospect area is approximately 13 787 Ha. The entire area was however scanned for possible heritage features. The survey took 22 hours to complete.

#### **4.6 Documentation**

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

#### **4.7 Evaluation of Heritage sites**

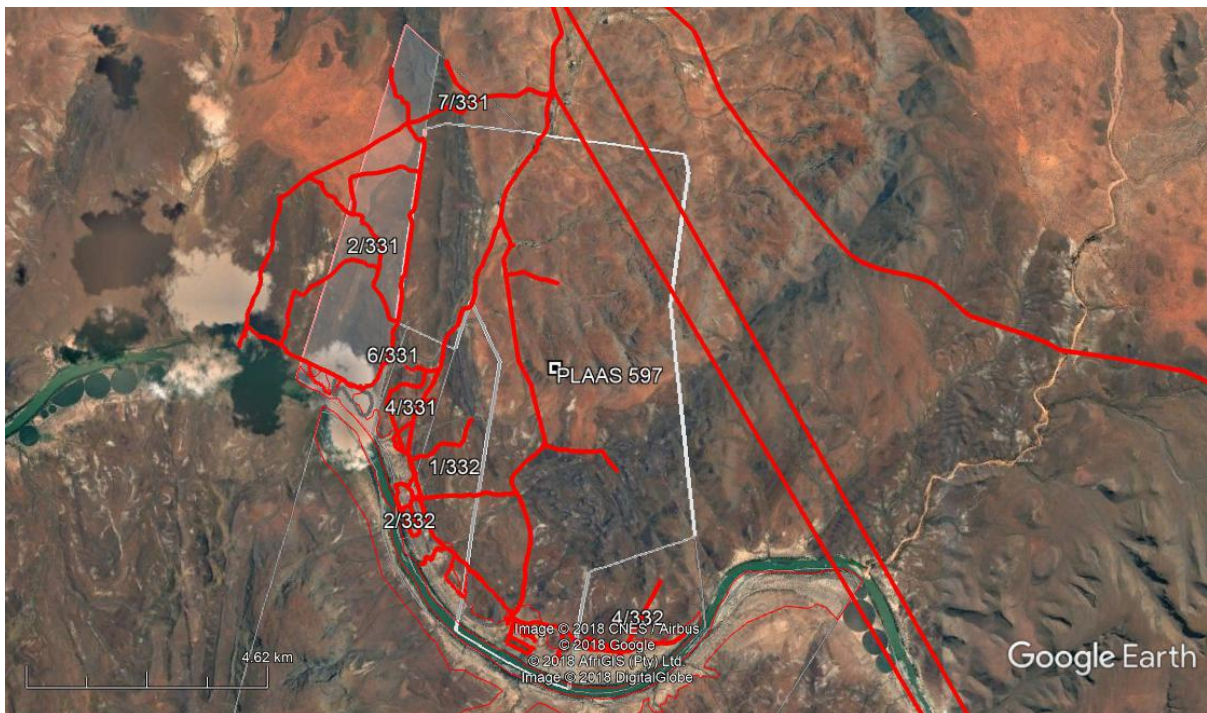
The evaluation of heritage sites is done by giving a field rating of each (see Appendix C) using the following criteria:

- The unique nature of a site
- The integrity of the archaeological deposit
- The wider historic, archaeological and geographic context of the site
- The location of the site in relation to other similar sites or features

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<sup>2</sup> A Garmin Oregon 550 with an accuracy factor of a few meters.

- The depth of the archaeological deposit (when it can be determined or is known)
- The preservation condition of the site
- Uniqueness of the site and
- Potential to answer present research questions.



**FIGURE 4: GPS TRACK<sup>3</sup> OF THE SURVEYED AREA.**

## **5. ASSUMPTIONS, GAPS, RESTRICTIONS, CONDITIONS AND LIMITATIONS**

The following conditions and assumptions have a direct bearing on the survey and the resulting report:

1. Cultural Resources are all non-physical and physical man-made occurrences, as well as natural occurrences associated with human activity (Appendix A). These include all sites, structures and artifacts of importance, either individually or in groups, in the history, architecture and archaeology of human (cultural) development. Graves and cemeteries are included in this.
2. The significance of the sites, structures and artifacts is determined by means of their historical, social, aesthetic, technological and scientific value in relation to their uniqueness, condition of preservation and research potential. The various aspects are not mutually exclusive, and the evaluation of any site is done with reference to any number of these aspects.

<sup>3</sup> Two people, in radio contact, did the survey, but only one GPS unit was available.



3. Cultural significance is site-specific and relates to the content and context of the site. Sites regarded as having low cultural significance have already been recorded in full and require no further mitigation. Sites with medium cultural significance may or may not require mitigation depending on other factors such as the significance of impact on the site. Sites with a high cultural significance require further mitigation (see Appendix C).
4. The latitude and longitude of any archaeological or historical site or feature, is to be treated as sensitive information by the developer and should not be disclosed to members of the public.
5. All recommendations are made with full cognizance of the relevant legislation.
6. It has to be mentioned that it is almost impossible to locate all the cultural resources in a given area, as it will be very time consuming. Developers should however note that the report should make it clear how to handle any other finds that might occur.
7. Certain areas which are clearly disturbed are also seen as very low risk areas and were therefore not surveyed in detail and sometimes just driven through.
8. In this particular case the vegetation under footing was reasonably open and the vegetation varied between medium and low. Accordingly, both the horizontal and the vertical archaeological visibility was influenced positively, and it was possible to see over a large distance with a diameter of approximately 300 m.
9. The entire area was scanned for heritage sites, but the focus was on the area of impact as described above.
10. Only the farms on the northern side of the Orange River was surveyed since access were not granted on the other farms.

## **6. DESCRIPTION OF THE PHYSICAL ENVIRONMENT**

Prieska and the farms surveyed lies within an area known to be very arid. Vegetation consists of low shrubs and bushes, with grass in between. A few large trees are spread across the veld. During the survey, the vegetation cover varied between low and medium high with the under footing between entirely open areas and dense plant growth (Figure 5-8).

Throughout the area signs of disturbance is visible. This mainly consist of former mining and prospecting activities, as well as powerlines and roads. In fact, the entire area to be impacted on is highly disturbed by former mining activities as well as agriculture (Figure 9-14). This section is situated along the bank of the Orange river, which flows from east to west through the site (Figure 15).

Mountains and hills are found along certain sections adjacent to the river and towards the north-east of the surveyed area (Figure 16-17). The topography of the surveyed area therefore varies accordingly.



**FIGURE 5: GENERAL VIEW OF THE SURVEYED AREA CLOSE TO THE ORANGE RIVER.**



**FIGURE 6: GENERAL VIEW OF THE SURVEYED AREA FURTHER TOWARDS THE NORTH OF THE ORANGE RIVER.**



**FIGURE 7: VIEW OF GROUND COVER IN THE SURVEYED AREA.**





**FIGURE 8: ANOTHER VIEW OF VEGETATION COVER ON SITE.**



**FIGURE 9: VIEW OF FORMER MINING ACTIVITIES.**





**FIGURE 10: VIEW OF FORMER PROSPECTING ACTIVITIES.**



**FIGURE 11: VIEW OF ALLUVIAL DIAMOND FIELD. NOTE THE DISTURBED YELLOW SOILS IN RELATION TO THE UNDISTURBED RED SOILS.**





**FIGURE 12: DISTURBED ALLUVIAL MINING AREA ALONG THE ORANGE RIVER.**



**FIGURE 13: ANOTHER VIEW OF A DISTURBED AREA.**



**FIGURE 14: AGRICULTURE IN THE SURVEYED AREA.**



**FIGURE 15: VIEW OF THE ORANGE RIVER IN THE SURVEYED AREA.**





**FIGURE 16: ONE OF THE HILLS ON THE SURVEYED FARMS.**



**FIGURE 17: VIEW OF MOUNTAINS IN THE SURVEYED AREA.**



## 7. HISTORICAL CONTEXT

Six sites of cultural heritage significance were identified during the survey. These were all found outside of the area of impact. Background information is given in order to place the surveyed area in a historical context and to contextualize possible finds that could be unearthed during mining activities.

There is limited archaeological information available of the area around Prieska. Known information is included in the discussion below.

### 7.1 Stone Age

The Stone Age is the period in human history when lithic material was mainly used to produce tools (Coertze & Coertze 1996: 293). In South Africa the Stone Age can be divided in three periods. It is, however, important to note that dates are relative and only provide a broad framework for interpretation. The division for the Stone Age according to Korsman & Meyer (1999: 93-94) is as follows:

Early Stone Age (ESA) 2 million – 150 000 years ago  
Middle Stone Age (MSA) 150 000 – 30 000 years ago  
Late Stone Age (LSA) 40 000 years ago – 1850 - A.D.

This geographical area is not well-known as one containing many prehistoric sites. One however has to realize that this most likely only indicates that not much research has been done here before.

MSA lithic tools were found on the farm Bundu, some 30 km to the south-west (Kiberd 2002). LSA material have been excavated at Noute-se-Berg towards the south-east of the study area (Beaumont & Vogel 1989). These dated to 1650 BP (Beaumont & Morris 1990). At Prieska more LSA tools were excavated by Beaumont.

Many Middle and Late Stone Age tools have been found by Archaetnos during surveys in the Northern Cape. These include isolated MSA and LSA stone tools found at Verdoorst Kolk, close to Brandvlei and at Kanakies close to Loeriesfontein (Archaetnos' database).

At Kenhardt, approximately 150 km north-west of the surveyed area stone tools were also identified. On the farm Konkooksies 91 in the Pofadder district, five sites with Middle and Late Stone Age tools were identified (Archaetnos database). Rock engraving (rock pecking) sites are known from the nearby Putsonderwater (Archaetnos database). Rock engravings are associated with the Late Stone Age people.

The mentioned Late Stone Age sites are associated with the San people. Mitchell (2002: 126) indicates that the language group who occupied the Northern Cape is the /Xam. These people were hunters and gatherers which means that they would have moved around, leaving little trace of their existence. The Hantam, Namaqualand and Bushmanland were of the last regions of the Cape Province to be settled by early

European farmers. The result was that it became a last outpost of the /Xam Bushman who still hunted and gathered there in the last decades of the 19th Century (Deacon 1986, 1997).

Isolated MSA and LSA tools were found scattered throughout the surveyed area (Figure 18). This indicates the presence of these people during the Stone Age.

From the above mentioned it is clear that Stone Age people did utilize the area by settling and probably hunting and gathering in it. The environment definitely would be supportive to Stone Age activities. The hills most likely would have given natural shelter and material to make stone tools from. These volcanic intrusions definitely give material suitable for the manufacture of lithic tools. Although the large flat surrounding area would not have given shelter, it must have been a prime hunting area.



**FIGURE 18: LSA AND MSA TOOLS FOUND DURING THE SURVEY.**

## **7.2 Iron Age**

The Iron Age is the name given to the period of human history when metal was mainly used to produce metal artifacts (Coertze & Coertze 1996: 346). In South Africa it can be divided in two separate phases according to Van der Ryst & Meyer (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.

No Early or Middle Iron Age sites have been identified in the area of study. Iron Age people occupied the central and eastern parts of southern Africa from about 200 A.D., but the San and Khoi remained in the western and southern parts (Inskeep 1978: 126; see also Huffman 2007).

During the Late Iron Age (LIA), people stayed in extensive stonewalled settlements, such as the Thlaping capital Dithakong, 40 km north of Kuruman. 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). It is also known that Late Iron Age people did utilize the area close to the Orange River, albeit briefly, as they did mine copper in the Northern Cape (Inskeep 1978: 135).

Iron Age people therefore did not settle in the study area. It therefore is no surprise that no such sites were identified during the survey.

### **7.3 Historical Age**

The historical age started with the first recorded oral histories in the area. It includes the moving into the area of people that were able to read and write. This era is sometimes called the Colonial era or the recent past. Due to factors such as population growth and a decrease in mortality rates, more people inhabited the country during the recent historical past. Therefore, and because less time has passed, much more cultural heritage resources from this era have been left on the landscape.

It is important to note that all cultural resources older than 60 years are potentially regarded as part of the heritage and that detailed studies are needed to determine whether these indeed have cultural significance. Factors to be considered include aesthetic, scientific, cultural and religious value of such resources.

Such sites include the many historical buildings and structures indicated on the SAHRA database such as a British blockhouse in Prieska (Figure 19) as well as buildings in Kakamas, Keimoes, Loeriesfontein and Brandvlei (SAHRA Database). These sites are associated with the early missionaries, travelers, first white farmers and establishment of towns during the 19<sup>th</sup> century.

From the 1880's onwards colonial settlement was promoted in the area. Government-owned land was surveyed and divided into farms, which were transferred to farmers. Surveyors were given the task of surveying and naming some of the many farms in this region. These farms were allocated to prospective farmers, but permanent settlement only started in the late 1920s and the first farmsteads were possibly built during this period. The region remained sparsely populated until the advent of the 20<sup>th</sup> century (De Jong 2010: 36).

Most of the farms in the broader geographic region were still Government farms and were leased to farmers in 1875 (Van Zyl 2010: 13). It seems as if shortly hereafter farms were sold to individuals. The above-mentioned information means that the buildings on these farms could only have been built after the mid-19<sup>th</sup> century and most likely after 1875.



**FIGURE 19: BRITISH ANGLO-BOER WAR (1899-1902) BLOCKHOUSE AT PRIESKA.**

## **8. DISCUSSION OF SITES IDENTIFIED DURING THE SURVEY**

As indicated six sites have been identified. None of these will directly be impacted on by the proposed prospecting activities. However, secondary impact, e.g. dust may be experienced, and the developers need to be aware of these sites in order to steer well clear thereof.



### 8.1 Site 1 – Terraced stone walling/ weir

The site consists of parallel stone walling forming a weir in a dry river bed, with associated stone walling along the river (Figure 20). The highest of the remaining walls is approximately 1 m high.

GPS: 29°22'24.3"S  
22°31'37.1"E



**FIGURE 20: STONE WALLING IN DRY RIVER BED.**

#### Cultural significance Table:

<b>A place is considered to be part of the national estate if it has cultural significance because of -</b>	<b>Applicable or not</b>	<b>Rating: 1 - Negligible/ 2 -Low/ 3 - Low-Medium/ 4 - Medium/ 5 - Medium-High/ 6 - High/ 7 - Very High</b>
Its importance in the community or pattern of South Africa's history	Y	L-M
Its possession of uncommon, rare, or endangered aspects of South Africa's natural or cultural history	N	-
Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage	Y	2

Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	N	-
Its importance in exhibiting particular aesthetic characteristics valued by a community cultural group	N	-
Its importance in demonstrating a high degree of creative or technical achievement at a particular period	Y	2
Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	Y	2
Its strong or special association with the life or work of a person, group or organization of importance in the history of South Africa	N	-
Sites of significance relating to the history of slavery in South Africa	N	-
<b>Reasoned assessment of significance using appropriate indicators outlined above:</b>		2,25 – LOW

**Integrity scale:**

- 1 – Bad state of preservation, but no contextual information
- 2 – Bad state of preservation and includes contextual information
- 3 – Reasonable state of preservation, but no contextual information
- 4 – Reasonable state of preservation and includes contextual information
- 5 – Good state of preservation, but no contextual information
- 6 - Good state of preservation and includes contextual information
- 7 – Excellent state of preservation, but no contextual information
- 8 – Excellent state of preservation and includes contextual information

**Field-rating = Cultural significance x Integrity**

$$= 2,25 \text{ (Low)} \times 3$$

$$= 6,75$$

The site is not very rare and therefore receives low cultural significance. The field rating is Local Grade IIIB. The site should be included in the heritage register and may be mitigated (high/ medium significance). Mitigation is subject to a permit application lodged with the relevant heritage authority.

The site may therefore be demolished, but since it falls outside of the area of impact it should be left *in situ*.

### 8.2 Site 2 – Farm yard

The site consists of a house and various outbuildings and other related farm features (Figure 21). It is in a dilapidated condition and probably roundabout 60 years of age (dating to the 1960s).

GPS: 29°26'07.7"S  
22°31'38.8"E



**FIGURE 21: FARM HOUSE AT FARM YARD.**

#### Cultural significance Table:

<b>A place is considered to be part of the national estate if it has cultural significance because of -</b>	<b>Applicable or not</b>	<b>Rating: 1 - Neglible/ 2 -Low/ 3 - Low-Medium/ 4 - Medium/ 5 - Medium-High/ 6 - High/ 7 - Very High</b>
Its importance in the community or pattern of South Africa's history	N	-
Its possession of uncommon, rare, or endangered aspects of South Africa's natural or cultural history	N	-

Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage	N	-
Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	N	-
Its importance in exhibiting particular aesthetic characteristics valued by a community cultural group	N	-
Its importance in demonstrating a high degree of creative or technical achievement at a particular period	N	-
Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	N	-
Its strong or special association with the life or work of a person, group or organization of importance in the history of South Africa	Y	1
Sites of significance relating to the history of slavery in South Africa	N	-
<b>Reasoned assessment of significance using appropriate indicators outlined above:</b>		<b>1 - NEGLIBLE</b>

**Integrity scale:**

- 1 – Bad state of preservation, but no contextual information
- 2 – Bad state of preservation and includes contextual information
- 3 – Reasonable state of preservation, but no contextual information
- 4 – Reasonable state of preservation and includes contextual information
- 5 – Good state of preservation, but no contextual information
- 6 - Good state of preservation and includes contextual information
- 7 – Excellent state of preservation, but no contextual information
- 8 – Excellent state of preservation and includes contextual information

**Field-rating = Cultural significance x Integrity**

= 1 (Negligible) x 3

= 3



The field rating for the site is Local Grade IIIC: The description in the phase 1 heritage report is seen as sufficient recording (low significance) and it may be granted destruction at the discretion of the relevant heritage authority without a formal permit application, subjected to the granting of Environmental Authorisation.

The site however falls outside of the area of impact it should be left *in situ*.

### 8.3 Site 3 – Lower grinding stone

This is not an actual site by an isolated lower grinding stone. It is similar to those used during the Iron Age for grinding sorghum. This one however also have paintings on which seems to have been done fairly recently (Figure 22). It may therefore be totally out of context.

GPS: 29°25'35.2"S  
22°30'34.9"E



**FIGURE 22: LOWER GRINDING STONE WITH RECENTLY DONE PAINTINGS.**

#### Cultural significance Table:

A place is considered to be part of the national estate if it has cultural significance because of -	Applicable or not	Rating: 1 - Neglible/ 2 -Low/ 3 - Low-Medium/ 4 - Medium/ 5 - Medium-High/ 6 - High/ 7 - Very High
Its importance in the community or pattern of South Africa's history	N	-

Its possession of uncommon, rare, or endangered aspects of South Africa's natural or cultural history	N	-
Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage	Y	2
Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	N	-
Its importance in exhibiting particular aesthetic characteristics valued by a community cultural group	N	-
Its importance in demonstrating a high degree of creative or technical achievement at a particular period	Y	2
Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	N	-
Its strong or special association with the life or work of a person, group or organization of importance in the history of South Africa	N	-
Sites of significance relating to the history of slavery in South Africa	N	-
<b>Reasoned assessment of significance using appropriate indicators outlined above:</b>		2 – LOW

**Integrity scale:**

- 1 – Bad state of preservation, but no contextual information
- 2 – Bad state of preservation and includes contextual information
- 3 – Reasonable state of preservation, but no contextual information
- 4 – Reasonable state of preservation and includes contextual information
- 5 – Good state of preservation, but no contextual information
- 6 - Good state of preservation and includes contextual information
- 7 – Excellent state of preservation, but no contextual information
- 8 – Excellent state of preservation and includes contextual information

**Field-rating = Cultural significance x Integrity**  
= 2 (Low) x 1  
= 2

The field rating for the find is Local Grade IIIC: The description in the phase 1 heritage report is seen as sufficient recording (low significance) and it may be granted destruction at the discretion of the relevant heritage authority without a formal permit application, subjected to the granting of Environmental Authorisation.

It however falls outside of the area of impact it should be left *in situ*.

#### **8.4 Site 4 – whetstone**

This again is not an actual site by an isolated find, namely a whetstone (Figure 23). It was probably used during the Stone Age to sharpen arrow heads. Nothing else was noted in its vicinity and therefore it may be totally out of context.

GPS: 29°24'12.5"S  
22°30'25.1"E



**FIGURE 23: WHETSTONE FOUND DURING THE SURVEY.**

**Cultural significance Table:**

<b>A place is considered to be part of the national estate if it has cultural significance because of -</b>	<b>Applicable or not</b>	<b>Rating: 1 - Negligible/ 2 -Low/ 3 - Low-Medium/ 4 - Medium/ 5 - Medium-High/ 6 - High/ 7 - Very High</b>
Its importance in the community or pattern of South Africa's history	N	-
Its possession of uncommon, rare, or endangered aspects of South Africa's natural or cultural history	N	-
Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage	Y	2
Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	N	-
Its importance in exhibiting particular aesthetic characteristics valued by a community cultural group	N	-
Its importance in demonstrating a high degree of creative or technical achievement at a particular period	Y	2
Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	N	-
Its strong or special association with the life or work of a person, group or organization of importance in the history of South Africa	N	-
Sites of significance relating to the history of slavery in South Africa	N	-
<b>Reasoned assessment of significance using appropriate indicators outlined above:</b>		<b>2 – LOW</b>

**Integrity scale:**

1 – Bad state of preservation, but no contextual information

- 2 – Bad state of preservation and includes contextual information
- 3 – Reasonable state of preservation, but no contextual information
- 4 – Reasonable state of preservation and includes contextual information
- 5 – Good state of preservation, but no contextual information
- 6 - Good state of preservation and includes contextual information
- 7 – Excellent state of preservation, but no contextual information
- 8 – Excellent state of preservation and includes contextual information

**Field-rating = Cultural significance x Integrity**

$$= 2 \text{ (Low)} \times 1$$
$$= 2$$

The field rating for the find is Local Grade IIIC: The description in the phase 1 heritage report is seen as sufficient recording (low significance) and it may be granted destruction at the discretion of the relevant heritage authority without a formal permit application, subjected to the granting of Environmental Authorisation.

It however falls outside of the area of impact it should be left *in situ*.

**8.5 Site 5 – Grave yard**

This is a grave yard consisting of at least three graves (Figure 24). These are all stone packed and two of them have headstones. No legible information is available. There is also nothing else of cultural heritage value in the vicinity. It is therefore believed to be the graves of travelers or people who died during the time the farm was used for winter grazing.

All the graves are therefore unknown graves. These should be dealt with as heritage graves (older than 60 years).

GPS: 29°23'37.4"S  
22°30' 29.8"E





**FIGURE 24: THE GRAVES AT SITE NO. 5.**

**Cultural significance Table:**

<b>A place is considered to be part of the national estate if it has cultural significance because of -</b>	<b>Applicable or not</b>	<b>Rating: 1 - Neglible/ 2 -Low/ 3 - Low-Medium/ 4 - Medium/ 5 - Medium-High/ 6 - High/ 7 - Very High</b>
Its importance in the community or pattern of South Africa's history	Y	H
Its possession of uncommon, rare, or endangered aspects of South Africa's natural or cultural history	Y	H
Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage	Y	M
Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	Y	H
Its importance in exhibiting particular aesthetic characteristics valued by a community cultural group	N	-

Its importance in demonstrating a high degree of creative or technical achievement at a particular period	N	-
Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	Y	H
Its strong or special association with the life or work of a person, group or organization of importance in the history of South Africa	N	-
Sites of significance relating to the history of slavery in South Africa	N	-
<b>Reasoned assessment of significance using appropriate indicators outlined above:</b>		5,6 – High

**Integrity scale:**

- 1 – Bad state of preservation, but no contextual information
- 2 – Bad state of preservation and includes contextual information
- 3 – Reasonable state of preservation, but no contextual information
- 4 – Reasonable state of preservation and includes contextual information
- 5 – Good state of preservation, but no contextual information
- 6 - Good state of preservation and includes contextual information
- 7 – Excellent state of preservation, but no contextual information
- 8 – Excellent state of preservation and includes contextual information

**Field-rating = Cultural significance x Integrity**

$$= 5,6 \text{ (High)} \times 3$$

$$= 16,8$$

Graves are always given a rating of **high** cultural significance due to it being a sensitive matter. Graves with an unknown date are always handled as if older than 60 years. Graves older than 60 years are regarded as heritage graves. The graves receive a field rating of Local grade III B.

Usually there are two options when dealing with graves. The first option is to leave the graves *in situ*. This would be possible should there be no direct impact on the graves. However, the possibility of secondary impacts due to dust etc. remains.

The second option is to exhume the graves and have the bodies reburied. This usually is only allowed if there is a direct impact on the site. Graves younger than 60 years are handled by a registered undertaker. Graves older than 60 years and those of an

unknown date is regarded as heritage graves. In such a case an archaeologist is also involved in the process.

The site will not be impacted on directly and therefore should remain *in situ*. It should be fenced in and a management plan drafted for the sustainable preservation thereof. A buffer zone of 20 m should be implemented.

### **8.6 Site 6 – farm house and stone kraal**

The site consists of a house with four rooms, built from stone as well as an associated kraal (Figure 25). It may be the first permanent building on the farm and probably dates back to the late 19<sup>th</sup>/ early 20<sup>th</sup> century. The windows of the house have been closed up by stones, an indication that it later-on received another function, probably a store room.

GPS: 29°22'20.2"S  
22°31'33.9"E



**FIGURE 25: THE RUIN OF THE STONE BUILT HOUSE.**



**Cultural significance Table:**

<b>A place is considered to be part of the national estate if it has cultural significance because of -</b>	<b>Applicable or not</b>	<b>Rating: 1 - Negligible/ 2 -Low/ 3 - Low-Medium/ 4 - Medium/ 5 - Medium-High/ 6 - High/ 7 - Very High</b>
Its importance in the community or pattern of South Africa's history	N	-
Its possession of uncommon, rare, or endangered aspects of South Africa's natural or cultural history	Y	4
Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage	N	-
Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	N	-
Its importance in exhibiting particular aesthetic characteristics valued by a community cultural group	N	-
Its importance in demonstrating a high degree of creative or technical achievement at a particular period	N	-
Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	N	-
Its strong or special association with the life or work of a person, group or organization of importance in the history of South Africa	N	-
Sites of significance relating to the history of slavery in South Africa	N	-
<b>Reasoned assessment of significance using appropriate indicators outlined above:</b>	<b>4 – MEDIUM</b>	

**Integrity scale:**

1 – Bad state of preservation, but no contextual information

- 2 – Bad state of preservation and includes contextual information
- 3 – Reasonable state of preservation, but no contextual information
- 4 – Reasonable state of preservation and includes contextual information
- 5 – Good state of preservation, but no contextual information
- 6 - Good state of preservation and includes contextual information
- 7 – Excellent state of preservation, but no contextual information
- 8 – Excellent state of preservation and includes contextual information

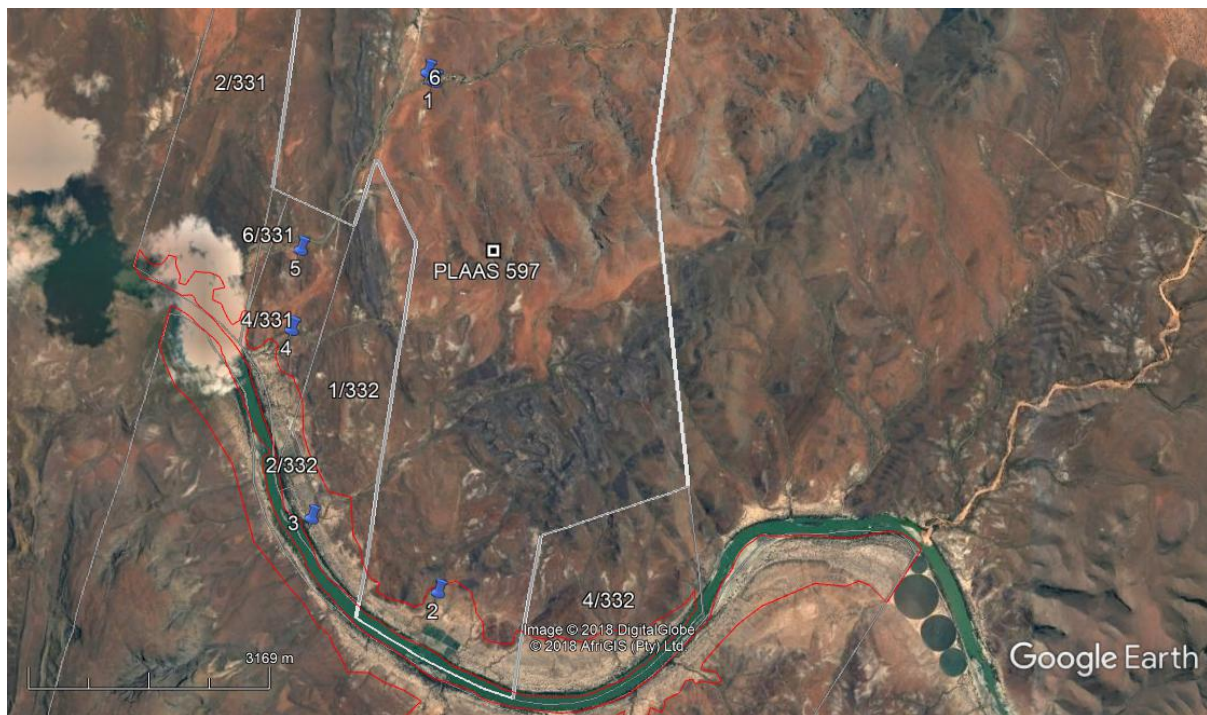
**Field-rating = Cultural significance x Integrity**  
 = 4 (Medium) x 3  
 = 12

The field rating for the site is Local Grade IIIB. It should be included in the heritage register and may be mitigated (high/ medium significance). Mitigation is subject to a permit application lodged with the relevant heritage authority.

The site may therefore be demolished, but since it falls outside of the area of impact it should be left *in situ*.

## 9. CONCLUSION AND RECOMMENDATIONS

The field work for the project has been completed successfully. Although six sites were identified (Figure 26), these are all outside of the area of impact.



**FIGURE 26: LOCATION OF THE SIX SITES IDENTIFIED DURING THE SURVEY.**

The following is recommended:

- The farm Middelwater 18 could not be surveyed, since access was not allowed. Therefore no mining or prospecting activities may be undertaken here until such time as an HIA has been done.
- Regarding the other three farms, the development may continue, but only after the report had been approved by SAHRA. Since none of the sites are in the area of impact, this report is seen as ample mitigation.
- Sites no. 1, 2, 3, 4 and 6 may be left *in situ*, since it falls outside of the area of impact.
- However, site no. 5 (graves) is regarded as an extremely sensitive site, and although it does not fall within the area of impact, the developer should ensure its protection. Therefore the site should be fenced in, a buffer zone of 20 m kept at all times and a management plan drafted to ensure the sustainable preservation of the graves.
- It should also be noted that the subterranean presence of archaeological and/or historical sites, features or artifacts is always a distinct possibility. Due to the density of vegetation in certain areas it also is possible that some sites may only become known later. Operating controls and monitoring should therefore be aimed at the possible unearthing of such features. Care should therefore be taken when development commences that if any of these are discovered, a qualified archaeologist be called in to investigate the occurrence.
- In this regard the following 'Chance find Procedure' should be followed:
  - *Upon finding any archaeological or historical material all work at the affected area must cease.*
  - *The area should be demarcated to prevent any further work there until an investigation has been completed.*
  - *An archaeologist should be contacted immediately to provide advice on the matter.*
  - *Should it be a minor issue, the archaeologist will decide on future action. Depending on the nature of the find, it may include a site visit.*
  - *SAHRA's APM Unit may also be notified.*
  - *If needed, the necessary permit will be applied for with SAHRA. This will be done in conjunction with the appointed archaeologist.*
  - *The removal of such archaeological material will be done by the archaeologist in lieu of the approval given by SAHRA, including any conditions stipulated by the latter.*
  - *Work on site will only continue after the archaeologist/ SAHRA has agreed to such a matter.*

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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:**

- Negligible – The site has no heritage significance, although it may be older than 60 years.
- Low - A cultural object being found out of context, not being part of a site or without any related feature/structure in its surroundings. A site with minimal importance which is decreased by its bad state of decay.
- Low-Medium - A site of lesser importance, which is increased by a good state of preservation and contextual importance (e.g. a specific community).
- 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.
- Medium-High - A site that has high importance due to its age or uniqueness, but which decreases due to its bad state of decay.
- High - Any site, structure or feature regarded as important because of its age or uniqueness. Also, any important object found within a specific context.
- Very High - A site of exceptional importance due to its age, uniqueness and good state of preservation.

#### **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:**

National Grade I significance: The site should be managed as part of the national estate, should be nominated as Grad I site, should be maintained in situ with a protected buffer zone and a CMP must be recommended. Score above 50.



Provincial Grade II significance: The site should be managed as part of the provincial estate, should be nominated as Grade II site, should be maintained in situ with a protected buffer zone and a CMP must be recommended. Score between 40 and 50.

Local Grade IIIA: The site should be included in the heritage register and not be mitigated (high significance), should be maintained in situ with a protected buffer zone and a CMP must be recommended. Score between 37 and 40.

Local Grade IIIB: The site should be included in the heritage register and may be mitigated (high/ medium significance). Mitigation is subject to a permit application lodged with the relevant heritage authority. Score between 6 and 36.

Local Grade IIIC: The description in the phase 1 heritage report is seen as sufficient recording (low significance) and it may be granted destruction at the discretion of the relevant heritage authority without a formal permit application, subjected to the granting of Environmental Authorisation. Score below 5.

## **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.