



Archaetnos Culture & Cultural  
Resource Consultants  
BK 98 09854/23

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**A REPORT ON A CULTURAL HERITAGE IMPACT ASSESSMENT FOR THE  
PROPOSED MINING OF THE GLOSAM MINE CLOSE TO POSTMASBURG,  
NORTHERN CAPE PROVINCE**

For:

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**REPORT NO.: AE02138V**

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***5 October 2021***

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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.**

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**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 Wapex Trading to conduct a cultural heritage impact assessment (HIA) for the proposed mining at the Glosam Mine. The Glosam Mine is situated 30 km to the north of the town of Postmasburg in the Northern Cape Province on the farm Gloucester.

### Project description:

Mining application.

### Methodology:

The methodology for the study includes a survey of literature and a field survey. 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 GPS. The information was added to the description in order to facilitate the identification of each locality.

### Public consultation:

Public consultation will be done by the EAP.

### Findings:

During the survey twenty-six sites of cultural heritage significance were identified within the immediate project area.

### Recommendations:

- Site 12 (farm yard) and 15 and 20 (railway sidings) are all outside of the development boundary. Site 12 has no cultural heritage value, and this report is seen as ample mitigation. The structures are younger than 60 years. It needed, may be demolished without a permit from SAHRA. The mine however indicated that it will be left as it is.
- The railway sidings receive a field rating of Local Grade IIIC. The description in the phase 1 heritage report is seen as sufficient recording and it may be granted destruction if needed. The mine however indicated that it will be left as it is.

- The remains of industrial building (site 6) and the base of a water reservoir (site 9) is reasonably close to the mining development. However both have no cultural heritage value. This report is seen as ample mitigation. The structures are younger than 60 years and in a very poor condition. It may be demolished without a permit from SAHRA. The mine however indicated that it will be left as it is.
- The office complex remains (site 10), various remains of brick buildings (site 11) and the farm yard (site 18) has no cultural heritage value and lies outside of the area of impact. This report is seen as ample mitigation. The structures are younger than 60 years and in a very poor condition. It may be demolished without a permit from SAHRA. The mine however indicated that it will be left as it is.
- The foundation (site 5) and metal framework of an industrial building (site 21) has no cultural heritage value and may therefore be demolished. It does however lie outside of the area of impact. Since it is older than 60 years, a permit would be required from the SAHRA. The mine however indicated that it will be left as it is.
- The concrete building remains (site 16) lies 30 m from the area of impact but has no cultural heritage value. It may therefore be demolished. Since it is older than 60 years, a permit would be required from the SAHRA. The mine however indicated that it will be left as it is.
- For the three mine houses (site 4) the field rating of the site is Local Grade IIIC. The description in this phase 1 heritage report is seen as sufficient recording 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 mine does not currently have any plans that will impact here. Also, since the buildings are younger than 60 years, no permit is currently required. The mine however indicated that it will be left as it is.
- The old hostel area and recreation hall (site 2) is regarding as having a field rating of Local Grade IIIC. The description in this phase 1 heritage report is seen as sufficient recording and it may be granted destruction. As both structures are older than 60 years, a permit from SAHRA is needed. The mine however indicated that it will be left as it is since it lies outside of the area of impact.
- The field rating for the ore loading bays (site 7, 14 and 19) Local Grade IIIC. The description in the phase 1 heritage report is seen as sufficient recording and it may be granted destruction. Since these sites are all younger than 60 years and in a very poor condition, it may be demolished without a permit from SAHRA. The mine however indicated that it will be left as it is, although no 7 is within the area of impact and no 14 approximately 80 m thereof. No 19 is outside of the area of impact.



- The field rating of the Glosam Mine Village (site 3) is Local Grade IIIB. The site should be included in the heritage register and may be mitigated. Mitigation is subject to a permit application lodged with the relevant heritage authority.
- The village is older than 60 years and is regarded as being very unique and typical of such a mining village. Therefore at least the first sixteen houses, social area, hall and other structure within the inner circle of the village should be preserved. It may however be utilized for another purpose, being a youth camp, holiday resort or guest house. It would be good to also preserve the outer circle as it is part of the original lay-out plan, although most of the buildings are much younger.
- The mine does not intend to do any work here at present. If needed, for any changes to the buildings older than 60 years, a permit would be required from the SAHRA.
- The Miners boxes (sites 1, 13, 17, 25 and 26) are regarded as having a field rating of Local Grade IIIB. The sites should be included in the heritage register and may be mitigated. Mitigation is subject to a permit application lodged with the relevant heritage authority. Site 1 is outside of the area of impact with all the others reasonably close, between 60 and 85 m thereof. Although the mine indicated that it will be left as it is, it is possible that there can be secondary impact due to mining activities (falling of walls etc.). Thus mitigation is needed.
  - Mitigation would entail to keep site 1 intact and preserve it, meaning that **a management plan should be drafted** for the site. It should also be fenced in.
  - Sites number 13, 17, 25 and 26 **should be documented** so that the information remains available should it be damaged. This documentation includes doing test excavations and drawing a site map of each.
- The loading platform (site 8) has a field rating of Local Grade IIIB. The site should be included in the heritage register and may be mitigated. Mitigation is subject to a permit application lodged with the relevant heritage authority. As it is typical of a certain era in the mining industry, it should be preserved, perhaps as part of an interpretive route. It may be utilized in further mining activities, but **a management plan would be needed** for that. The mine however indicated that it will be left as it is. Due to it being very close to the area of impact (70 m) secondary impact is possible and thus it is recommended that the site **be fully documented**. This would be a photographic and mapping documentation.
- The grave yards (site 22, 23 and 24) receives a field rating of Local Grade IIIB. It should be included in the heritage register and may be mitigated. Mitigation is subject to a permit application lodged with the relevant heritage authority.
- When dealing with graves there are two options:

- Option 1 would be to fence the graves in and have a management plan drafted for the sustainable preservation thereof (“Option 1”). This should be written by a heritage expert. Option 1 is implemented when indirect or secondary impact is foreseen.
- Option 2 is implemented when a direct impact is foreseen. Should any danger be posed to the graves, Option 2 will have to be taken. This option is to exhume the mortal remains and then to have it relocated (“Option 2”). For this a detailed motivation will have to be written and applied for to SAHRA. If approved, the specific procedure should be followed which includes social consultation. For graves younger than 60 years, only an undertaker is needed. For those older than 60 years and unknown graves an undertaker and archaeologist is needed. Permits should be obtained from the Burial Grounds and Graves unit of SAHRA. This procedure is quite lengthy and involves social consultation.
- In this case it seems there will not be impact, Thus, **Option 1 is recommended.** A buffer zone of at least 50 m should be implemented.
- The proposed development may continue, but only after receiving the necessary approval from SAHRA.
- It should 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 it also is possible that some sites may only become known later on. 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 regards 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 in order 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, which could include adapting the HIA or not. 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 removal of the archaeological/ historical*

*material was done.*

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**CURRICULUM VITAE**  
**Prof. Anton Carl van Vollenhoven**

**PERSONAL INFORMATION**

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- Address: Archaetnos, PO Box 55, Groenkloof, 0027
- Cell phone: 083 291 6104
- Nationality: RSA
- E-mail: antonv@archaetnos.co.za

**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 Archaetnos 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.
- *2014-2015*: Part-time lecturer for the Honours degree in Museum Sciences in the Department of History and Heritage Studies at the University of Pretoria
- *Since 2015*: Extraordinary Professor of History at the Mahikeng campus of the North-West University

**OTHER**

- Has published 40 peer-reviewed and 45 popular articles.
- Has written 11 books/book contributions/conference proceedings .
- Has been the author and co-author of over 1021 unpublished reports on cultural resources surveys and archaeological work.
- Has delivered more than 75 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.

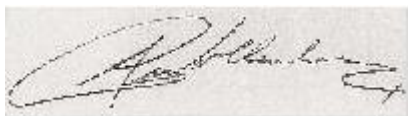
- Member of Association for South African Professional Archaeologists.
- Member of the South African Society for Cultural History (Chairperson 2006-2008; 2012-2014; 2018-2021).
- Has been editor for the SA Journal of Cultural History 2002-2004.
- Editorial member of various scientific journals.
- Member of the Provincial Heritage Resources Agency, Gauteng's Council.
- Member of Provincial Heritage Resources Agency, Gauteng's HIA adjudication committee (Chairperson 2012-2024).

A list of reports can be viewed on [www.archaetnos.co.za](http://www.archaetnos.co.za).

### 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: 5 October 2021

### LIST OF ACRONYMS:

AIA – Archaeological Impact Assessment  
 APM – Archaeology, Palaeontology and Meteorites unit at 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

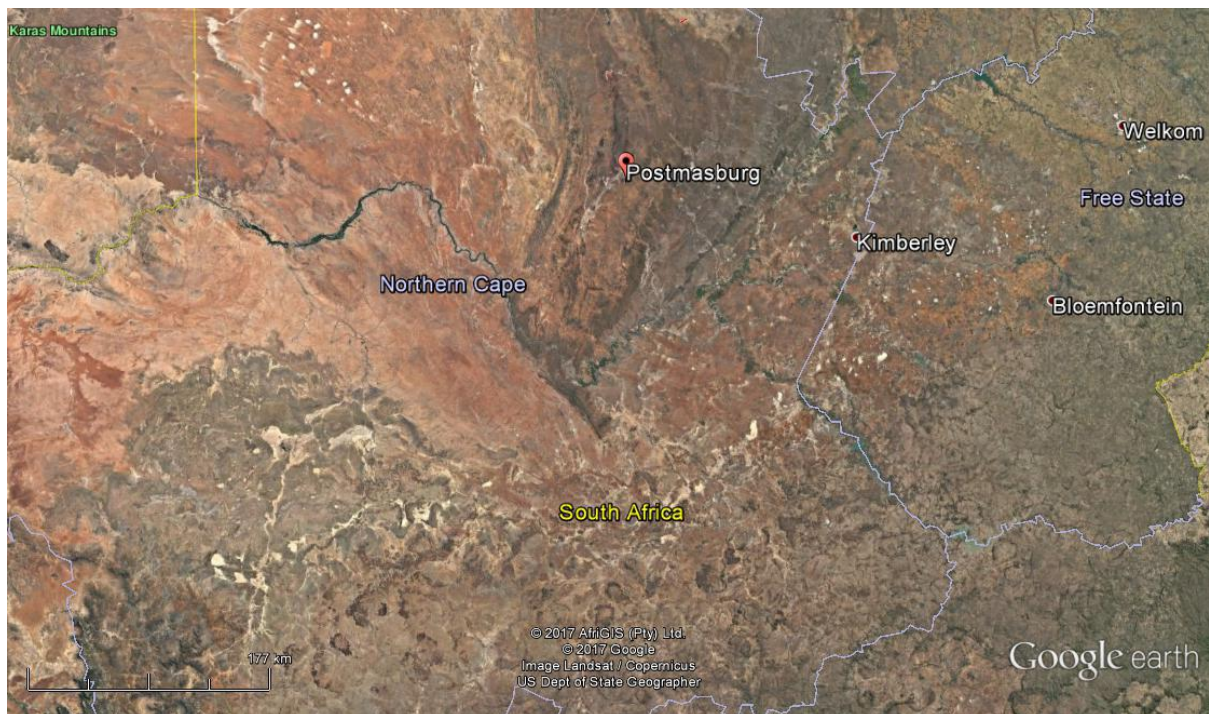
## 1. INTRODUCTION

Archaetnos cc was requested by Wapex Trading to conduct a cultural heritage impact assessment (HIA) for the mining at the Glosam Mine. The mine is situated 30 km to the north of the town of Postmasburg in the Northern Cape Province on the farm Gloucester (Figure 1-3). The mining entails the re-opening of existing mining areas as well as new areas (Figure 4-9)

The applicant is WAPEX Trading. The EAP compiling the application is Roelien Oosthuizen – [roosthuizen950@gmail.com](mailto:roosthuizen950@gmail.com)

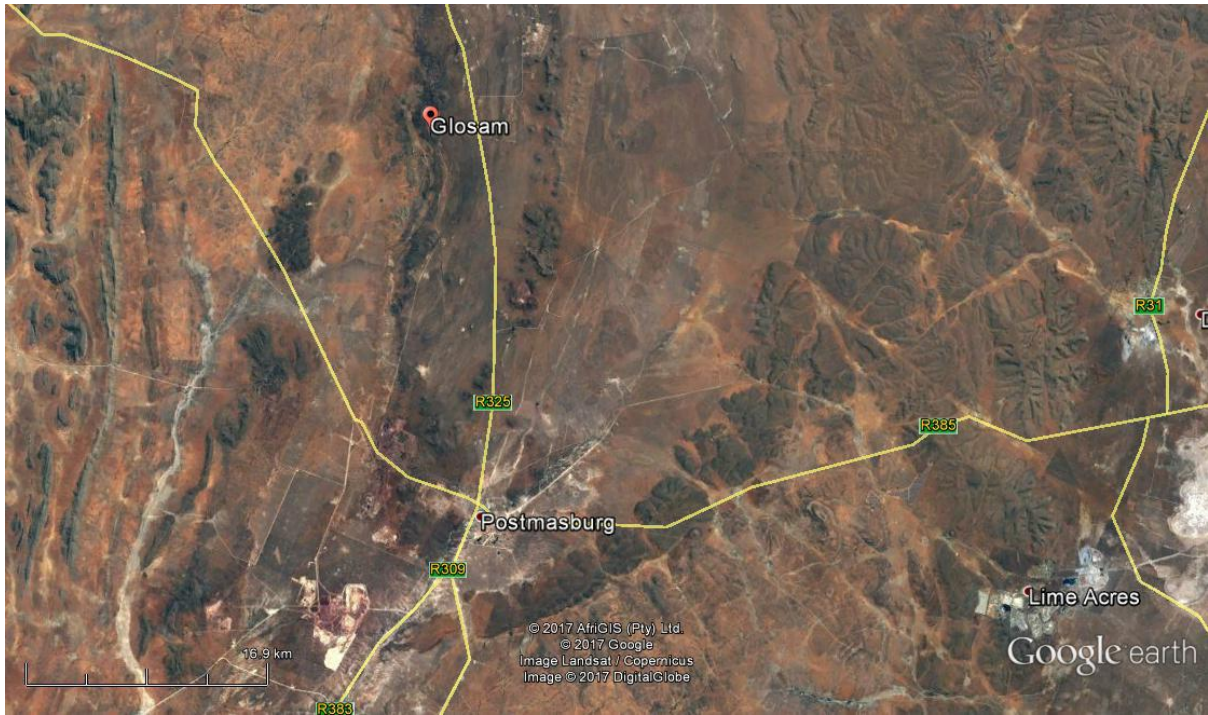
**TABLE 1: SUMMARY OF PROJECT SPECIFICS**

|  |  |
|--|--|
| Type of development                                      | Mining                                 |
| Detail of proposed activities (NHRA section 38 triggers) | Area larger than 5 000m <sup>2</sup>   |
| Size of project  | 1165,8 Ha                              |
| Municipality   | Kuruman magisterial District           |
| 1:50 000 topographic map number                          | 2823AA Lohatlha                        |
| Farm portions  | Remaining extent of Gloucester no. 674 |

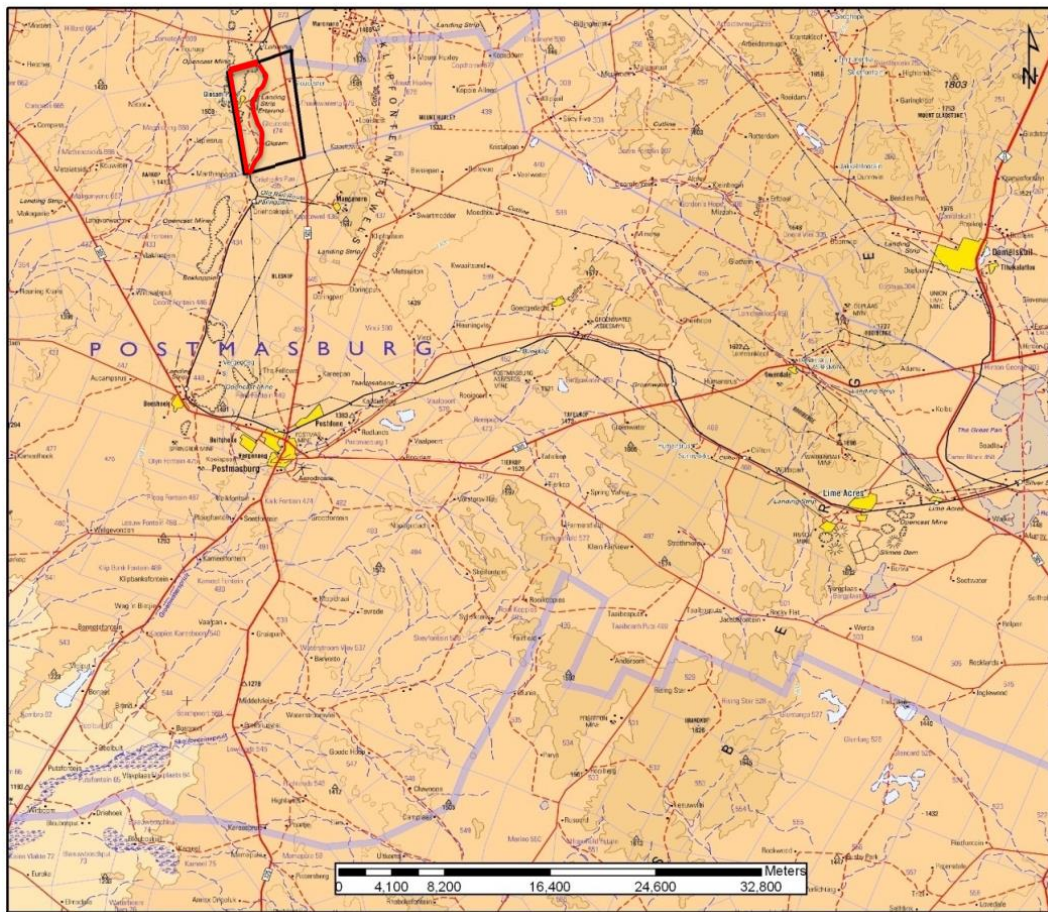


**FIGURE 1: LOCATION OF POSTMASBURG IN THE NORTHERN CAPE PROVINCE.**



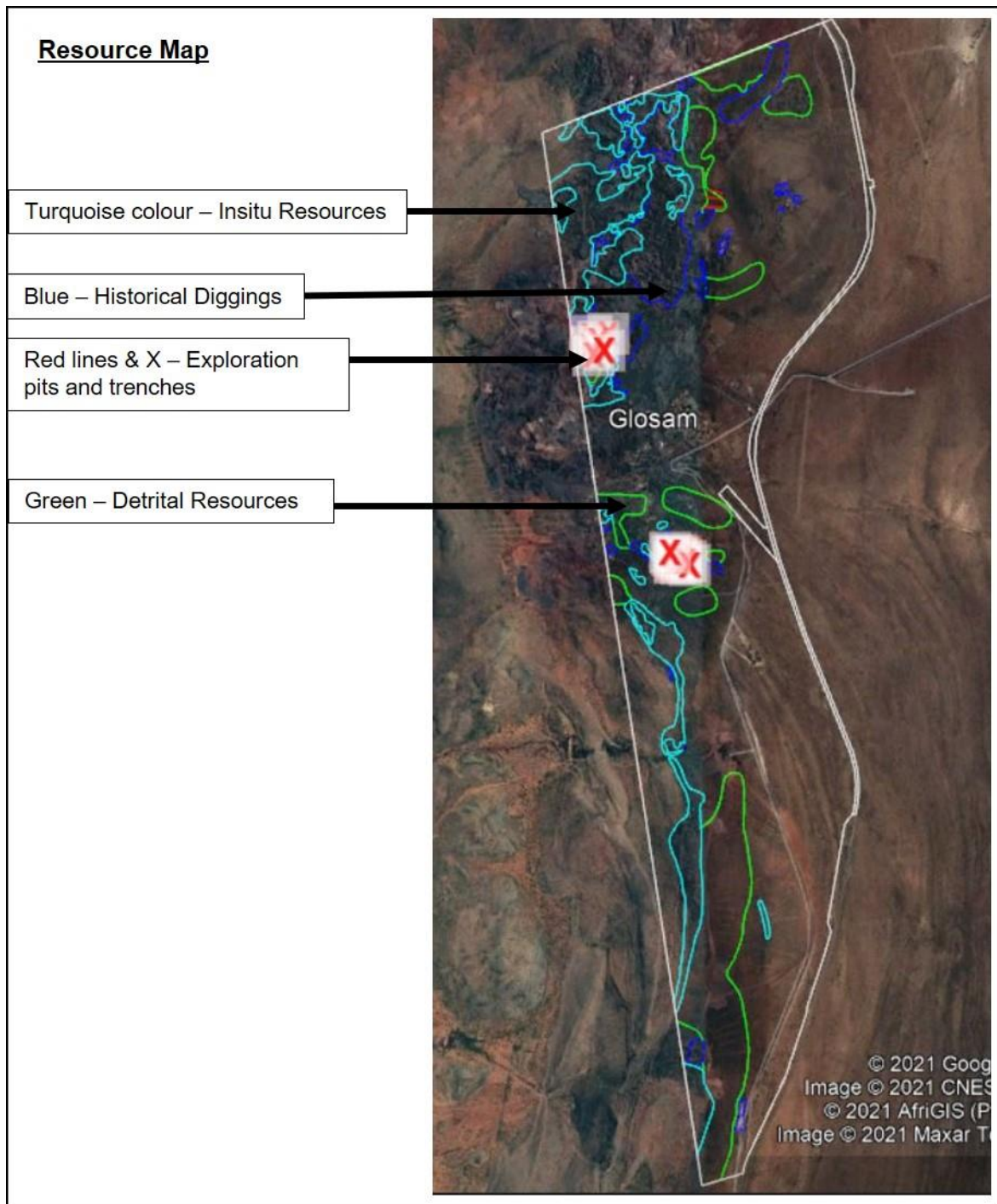


**FIGURE 2: LOCATION OF GLOSAM IN RELATION TO POSTMASBURG.**

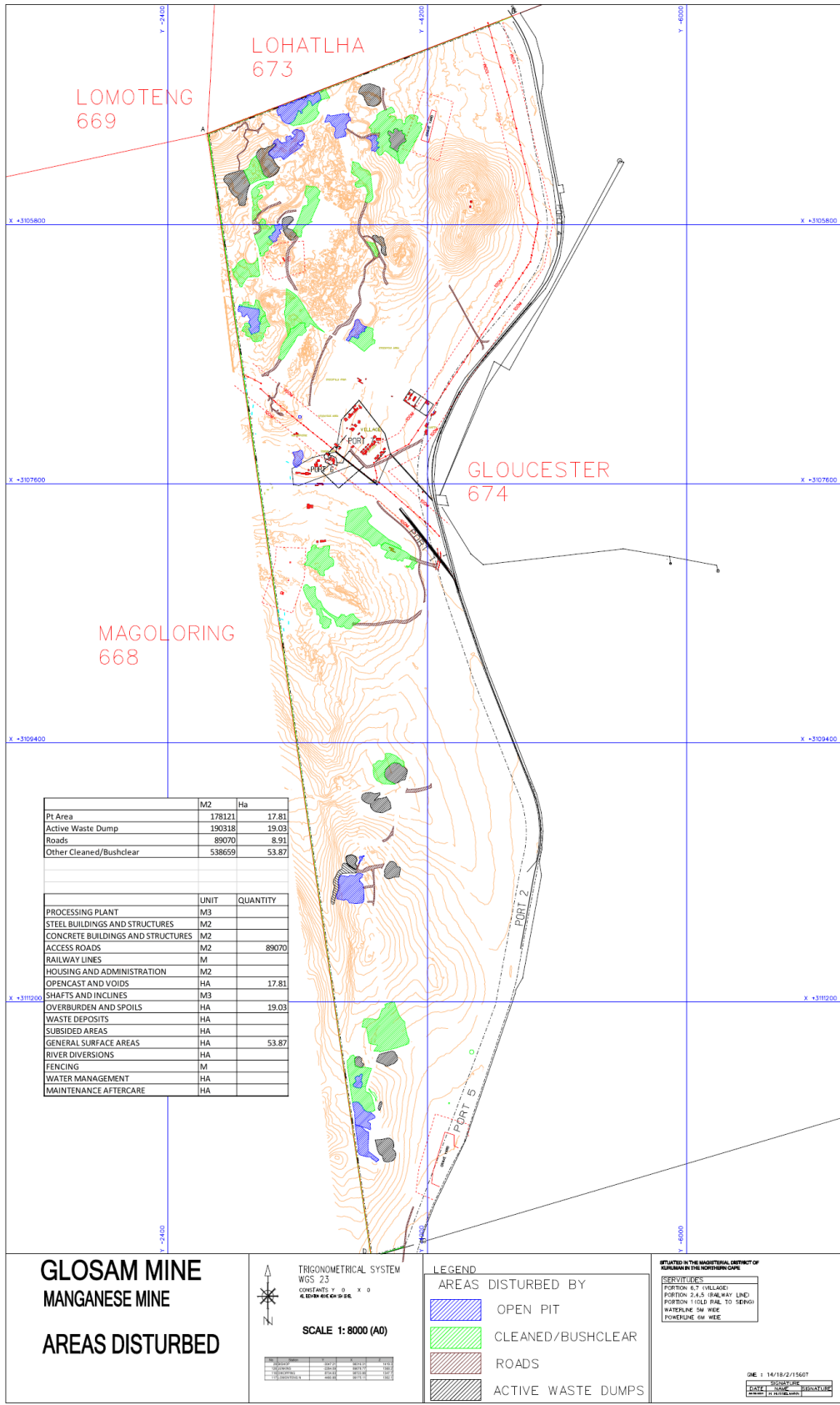


**FIGURE 3: LOCALITY MAP SHOWING POSTMASBURG AND THE FARM GLOUCESTER, AS WELL AS THE GLOSAM MINE BOUNDARY (RED).**

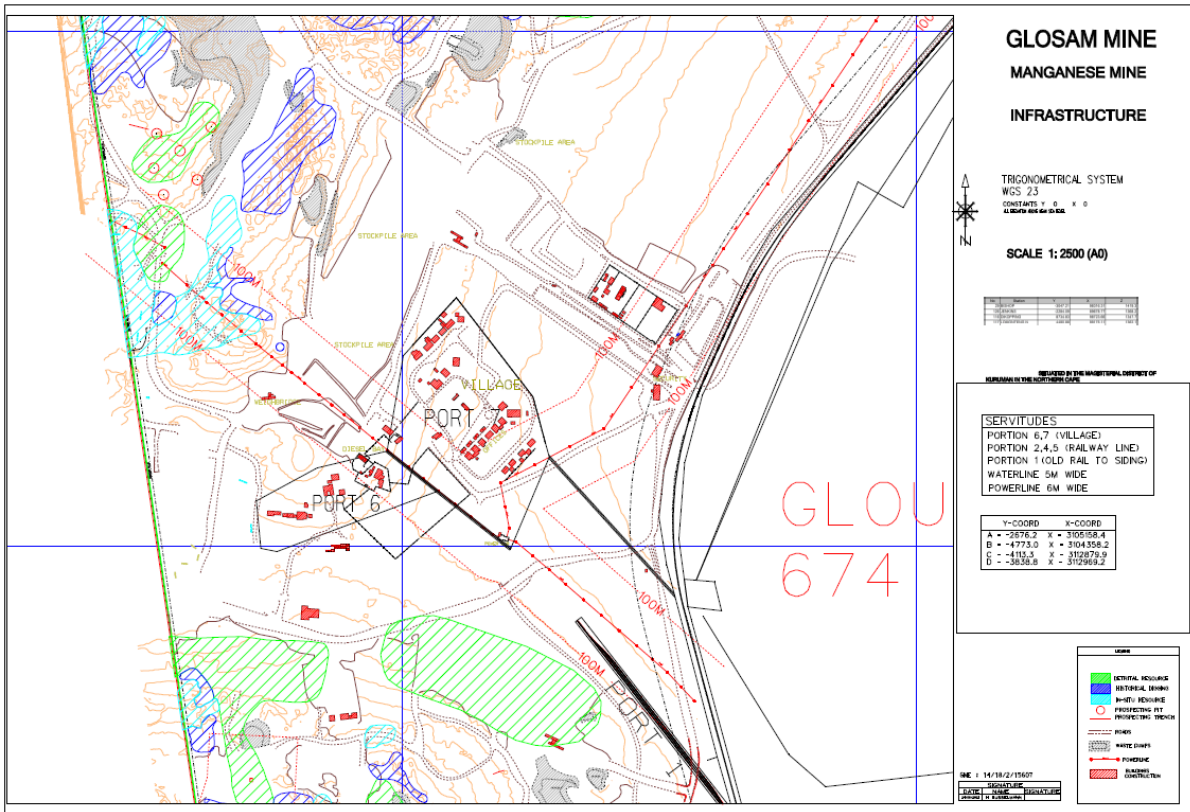




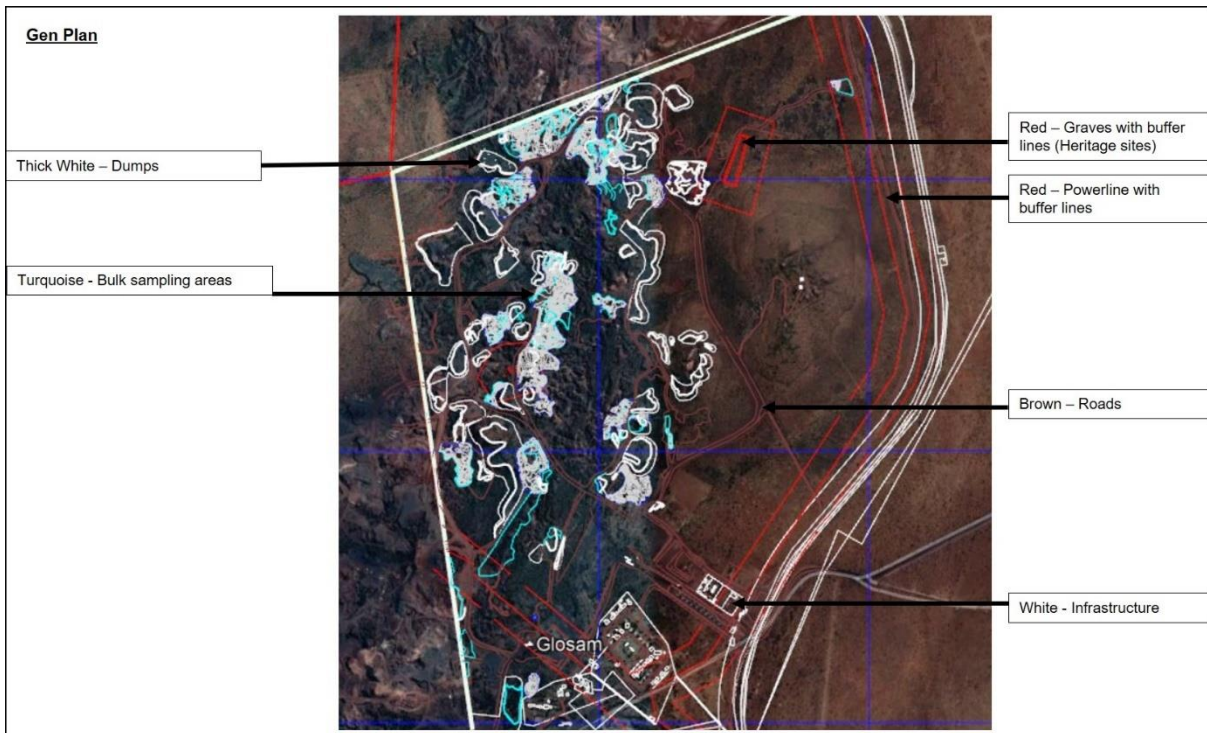
**FIGURE 4: RESOURCE MAP OF THE MINE.**



**FIGURE 5: EXISTING DISTURBED AREAS AT GLOSAM.**

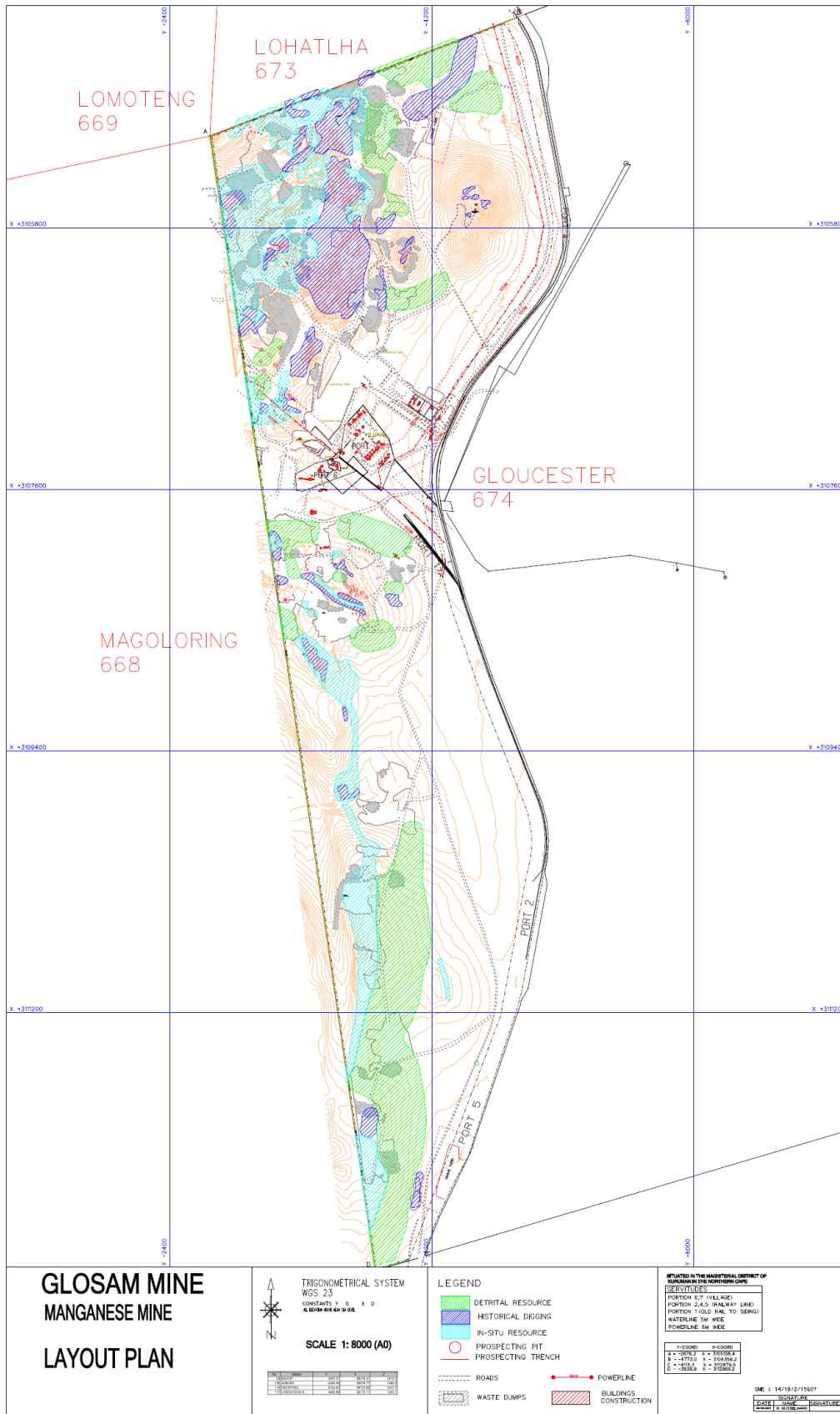


**FIGURE6: DETAIL OF INFRASTRUCTURE.**



**FIGURE 7: GENERAL PLAN.**





**FIGURE 8: LAYOUT PLAN.**



**FIGURE 9: GOOGLE EARTH IMAGE OF MINE PLAN.**

It needs to be indicated that Archaetnos did three HIA's previously on the property. These was done for the purpose of prospecting. The first of these HIA's was completed in 2018 (see Van Vollenhoven 2018). The study was updated twice in 2019 due to additional sites being identified (see Van Vollenhoven & Smit 2019a and 2019b). The site is therefore well known by Archaetnos and have been surveyed thoroughly. These surveys were done via foot and off-road vehicle and the information is now re-assessed for the purpose of mining.

## **2. TERMS OF REFERENCE**

The Terms of Reference for the initial 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.

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;

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

- 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). In order 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 desktop studies**

A previous study was done at the site in 2010 for the purpose of mine closure (Van Vollenhoven & Pelsers 2010) and another three related to the prospecting for the mine in 2018 (Van Vollenhoven 2018) and 2019 (Van Vollenhoven & Smit 2019a & 2019b). The information from these reports are included below.

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

Public consultation was done in by the EAP during the Basic Assessment Phase. A report can be obtained from them.

### **4.4 Physical field survey**

The previous surveys were 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. Since it is believed the area was covered sufficiently, no new survey was done but information from the previous surveys utilized.

During the mentioned surveys, 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 surveys were 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 10-12).

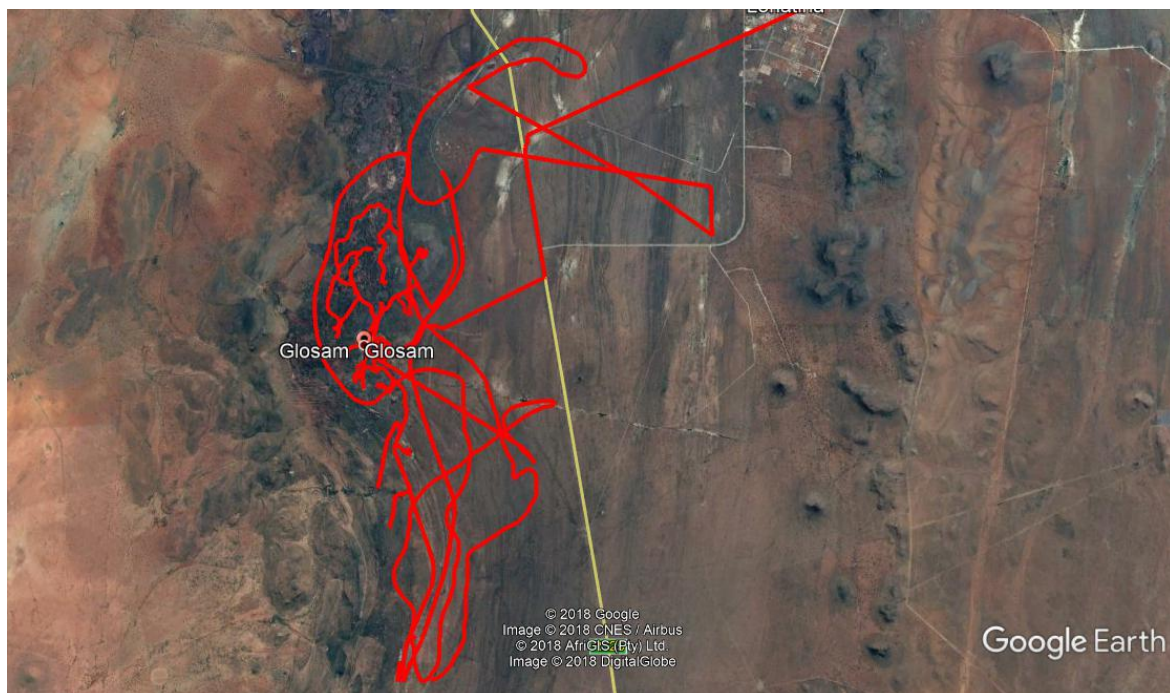
It needs to be mentioned that the site is extremely disturbed by past mining activities and therefore areas with natural vegetation is limited. Certain areas could not be

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

accessed due to steepness and height of remains of former mining activities (large mounds of loose soil and rock) and the dense growth of pioneer plant species. Factors, such as accessibility, density of vegetation, etc. may therefore have influenced the coverage. In this instance the under footing varied between extremely dense and very open areas with the vegetation cover mostly low to medium, but high in certain areas. Accordingly, both the vertical and horizontal visibility was influenced negatively.

However, since almost the entire area here is disturbed, it is seen as a low risk area for heritage sites. This of course excludes sites linked to former mining activities, which are likely to exist. An aspect that needs to be considered is that during the 2010 survey, the entire area had been surveyed but there is no track record since that was in a time when track routes were not required. The site therefore has been sufficiently surveyed.



**FIGURE 10: TRACK ROUTE<sup>3</sup> OF THE 2018 SURVEY.**

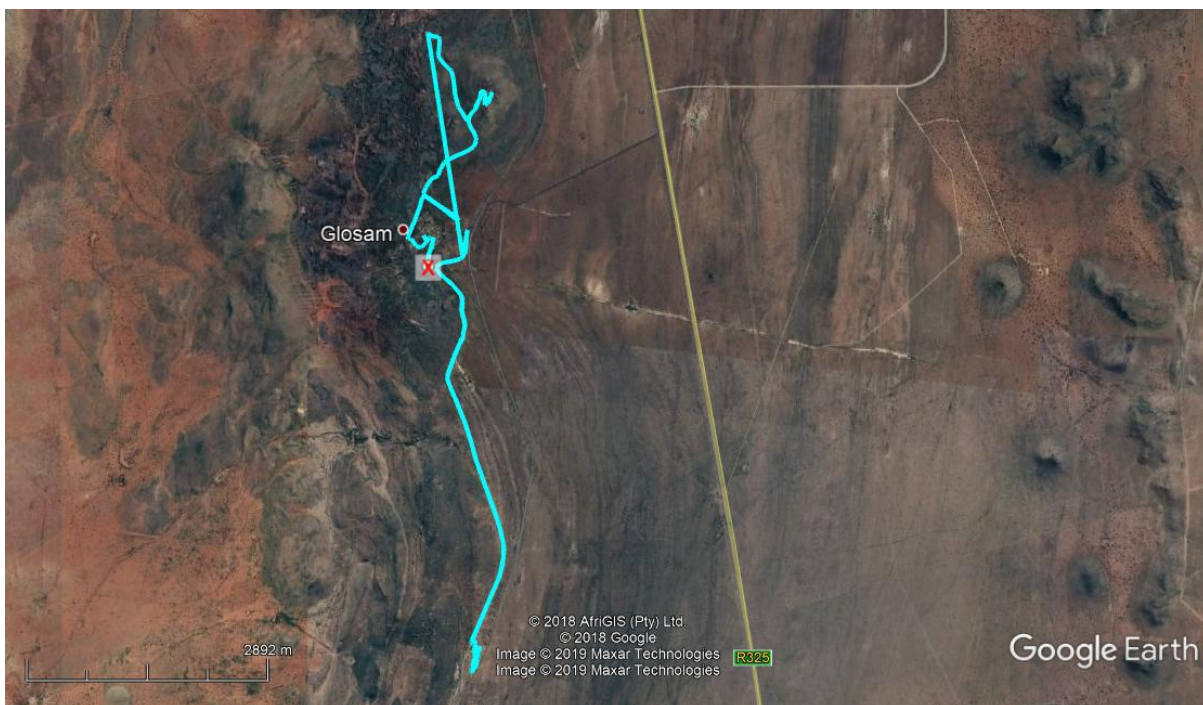
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<sup>3</sup> Two people in radio contact did the survey, but only one GPS instrument was available. The track therefore only shows the movement of one person.





**FIGURE 11: TRACK ROUTE<sup>4</sup> OF THE JULY 2019 SURVEY.**



**FIGURE 12: TRACK ROUTE<sup>5</sup> OF THE AUGUST 2019 SURVEY.**

<sup>4</sup> It needs to be noted that since the site had been surveyed before, only the two possible heritage features identified by the mine was visited.

<sup>5</sup> It needs to be noted that since the site had been surveyed before, only the four possible heritage features identified by the mine was visited.

## **4.5 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 GPS. The information was added to the description in order to facilitate the identification of each locality.

## **4.6 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
- 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.

## **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.
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).

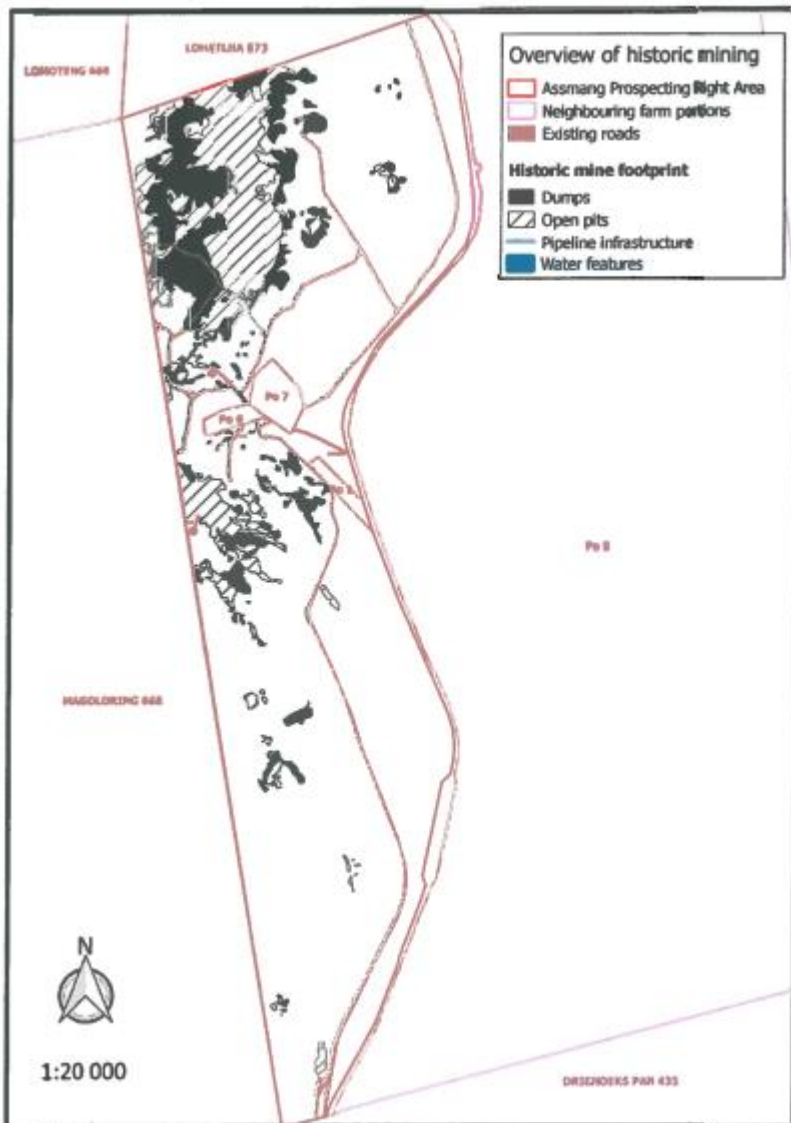
4. The latitude and longitude of any archaeological or historical site or feature, is to be treated as sensitive information by the developer and should not be disclosed to members of the public.
5. All recommendations are made with full cognizance of the relevant legislation.
6. It has to be mentioned 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. In this particular case the entire surveyed area has been largely disturbed by recent human activities. Accordingly, these areas are seen as low risk areas to reveal heritage sites due to it being almost entirely disturbed.
8. Certain areas could not be accessed due to steepness of remains of former mining activities and the dense growth of pioneer plant species. Factors, such as accessibility, density of vegetation, etc. may therefore have influenced the coverage. In this instance the under footing varied between extremely dense and very open areas with the vegetation cover mostly low to medium, but high in certain areas. Accordingly, both the vertical and horizontal visibility was influenced negatively.

## **6. DESCRIPTION OF THE SOCIO-ECONOMIC ENVIRONMENT**

Economic activities in the area include mining, community/ social, retail, financial/ real estate and manufacturing. The socio-economic information includes the following:

- 60% below 20 years of age
- 23% unemployment
- 97% of people are from the low- and medium-income category
- 20% are unskilled
- 54% are semi-skilled
- 23% are skilled
- 3% are highly skilled

The population consist of 35 093 (2011). Job migration, especially of males has grown considerably over the last decade. The unemployment figures have increased over the last 10 years. The area is characterized by a mixture in land use, including agriculture and mining as the dominant activities (Figure 13).



**FIGURE 13: LAND USE MAP (WAPLEX TRADING).**

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

The topography of the surveyed area shows a hill in the north and west, which have mostly been mined for manganese in recent historical times. Accordingly, it is a very disturbed area. The southern and eastern portions of the farm are flatter (Figure 14).

Apart from the mentioned mining activities (Figure 15-17), other infrastructure is also found on site. This includes residential and official building which will be discussed below. Many dirt roads are found on the property and a railway track cuts through it, running from the north to the south-west.

The grass cover is mostly short with a few exceptions. Pioneer vegetation has already taken over much of the areas where mining was done earlier. In all the vegetation



cover is quite extensive. This is especially true of the southern portion of the farm, which seem not to have been disturbed as much and which is still used for grazing (Figure 18-19).



**FIGURE 14: GOOGLE IMAGE OF THE PROJECT AREA SHOWING THE MINING VILLAGE OF GLOSAM.**



**FIGURE 15: GENERAL VIEW OF THE SURVEYED AREA SHOWING OLD MINING.**





**FIGURE 16: ANOTHER VIEW OF OLD MINING ACTIVITIES AT THE SITE.**



**FIGURE 17: VIEW OF INFRASTRUCTURE ON SITE.**



**FIGURE 18: VIEW OF VEGETATION IN THE SOUTHERN SECTION OF THE SURVEYED AREA.**



**FIGURE 19: GENERAL VIEW OF VEGETATIO IN SURVEYED AREA.**

## **8. HISTORICAL CONTEXT**

During the 2010 survey twelve sites of cultural heritage significance were located on the farm. Only eleven of these are inside of the current proposed development area. area planned for the in the area to be developed. Nine new sites were identified during

2018. Only one of the sites visited during July 2019 was deemed to be a grave site (the other one merely consisted of mine rubble). All four sites visited during August 2019 are heritage sites. Thus, the total number of sites are twenty-six.

However, in order to be able to get a better understanding of the past in this area, it is necessary to give a background regarding the different phases of human history.

### **8.1 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.

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

The onset of the Middle Stone Age coincided with a widespread demand for coloured or glittering minerals that arose at the time for still unknown reasons. The intensive collection of such substances soon exhausted surface exposures and led to the quest being extended underground and thus to the birth of mining practice. Specularite was commonly mined in the Postmasburg area. In 1968 AK Boshier, working in collaboration with P Beaumont, found a number of underground specularite mines on Paling (De Jong 2010: 35; Beaumont 1973). Stone and Iron Age communities mined specularite associated with iron ores for cosmetic purposes at Blinkklipkop, Paling, Gloucester and other farms (De Jong 2010: 41; Snyman 2000: 3).

A large number of Stone Age sites with tools ranging between the Middle and Later Stone Age were identified along the Gamagara River, close to Hotazel, north of Glosam. These were mitigated in 2020 (Van Vollenhoven 2020). A number of Stone Age sites and scattered finds of Stone Age material were also identified on the nearby farm Paling during an earlier survey (Pelser and Van Vollenhoven 2010: 12-17). Rock engraving (rock pecking) sites are known from Beeshoek (Figure 20-22) and Bruce (Morris 2005: 3; Snyman 2000: 3). The latter are associated with the Late Stone Age.

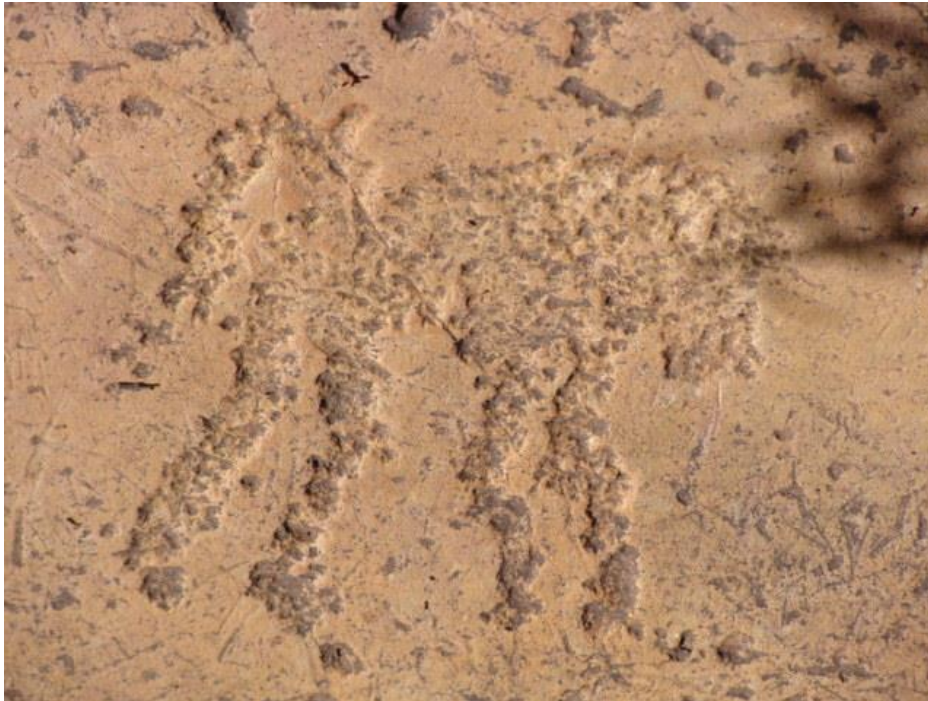




**FIGURE 20: ENGRAVING OF A GIRAFFE AT BEESHOEK.**



**FIGURE 21: ROCK PECKING OF AN ORYX AND A SUN.**



**FIGURE 22: ROCK PECKING OF A BABOON.**

The environment at Gloucester (Glosam) is such that it does provide much natural shelter and therefore it is possible that Stone Age people did also settle here. They would also have been lured to the area due to an abundance of wild life. However, no Stone Age sites were identified during the survey.

## **8.2 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.

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. Sotho-Tswana and Nguni societies, the descendants of the LIA mixed farming communities, found the region already sparsely inhabited by the Late Stone

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

No Iron Age sites, features or objects were found during the survey. The type of environment however is suitable for human habitation. One would therefore expect that Iron Age people may have utilized the area. This is the same reason why white settlers later on moved into this environment.

### **8.3 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.

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 18<sup>th</sup> 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 (De Jong 2010: 36).

The *difaqane* coincided with the penetration of the interior of South Africa by white traders, hunters, explorers and missionaries. The first traders in the Northern Cape were PJ Truter's and William Somerville's journey of 1801, which reached Dithakong at Kuruman. They were again 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 (De Jong 2010: 36). During the 1870's William Sanderson, John Ryan and John Ludwig passed through the area close to Postmasburg (Snyman 2000: 3).

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).

Geographically, the study area is part of a region known as Griqualand West. At the end of the 18<sup>th</sup> century and the beginning of the 19<sup>th</sup> century Griqua tribes coming from the south settled in the region in order to escape encroachment of Afrikaner Trekboere who was active along the Orange River. They established the town of Klaarwater, renamed Griquatown in 1813. After the discovery of diamonds in 1867 a serious dispute over the ownership of the diamond fields ensued, involving the Transvaal and Orange Free State Boer republics, Griqua, Korana and Thlaping communities and the Cape colonial government. In October 1871 the diamond fields were proclaimed British territory under the name Griqualand West. In 1879 it was annexed to the Cape Colony (De Jong 2010: 36).

The incorporation of Griqualand West into the Cape Colony promoted colonial settlement in the area from the 1880s. 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 (De Jong 2010: 36). The Griqua town of Blinkklip (established in 1882), originally a mission station, was renamed Postmasburg in 1892 and became the centre of a magisterial district (Snyman 2000: 6). Another town, Olifantshoek, was established in the 1880s. The region remained sparsely populated until the advent of the 20<sup>th</sup> century, when cattle farming became popular (De Jong 2010: 36).

Prospecting started in the Postmasburg area during 1882 and manganese was discovered here during 1886 (Snyman 2000: 6, 13). Henry George Brown, who was commissioned in 1888 by the government of British Bechuanaland to erect the first government buildings in Kuruman, became interested in the iron ores that were known from the Klipfontein Hills. While prospecting there in the late 19<sup>th</sup> century, he became the first person to identify manganese in what is today known as the Eastern Belt of the Postmasburg Manganese Field. Captain Thomas Shone, who arrived in Postmasburg in 1919 to join the diggers following the discovery of diamonds at the town, discovered the manganese ores in the Western Belt during 1922-1924 (De Jong 2010: 38).

In 1925 Shone and partners founded the Union Manganese Mines and Minerals Limited in order to secure mineral rights and exploit the ores. Prior to the discoveries by Brown and Shone, manganese was only mined in South Africa on a very small-scale west of the present town of Magaliesburg and in the Western Cape. In 1926, Guido the farm and formed The Gloucester Manganese Mines (Postmasburg) Limited. The land was held for future development, as reasonable transportation facilities were not available at that time (De Jong 2010: 38; Snyman 2000: 22).

Following the founding of their manganese mining company, Shone and his partners attempted to entice overseas investments but met with little success, because too little was known about the economic viability of the deposits. The government then sent Dr. AL Hall of the Geological Survey to conduct a detailed geological survey of the Postmasburg manganese deposits. He was the first person to map them along the entire length of the Gamagara Hills and to classify them scientifically as ferruginous



manganese ores that were suited for the production of low-grade ferromanganese. His report (1926) was optimistic about the viability of the deposits but stated that lack of proper transport facilities would be a concern (De Jong 2010:39).

Shone's company established small prospect workings all along the Gamagara Hills on farms such as Beeshoek, Paling, Doornfontein and Magoloring. In 1926 a Postmasburg attorney, AJ Bester, started taking up options on the farms in the Klipfontein Hills and established a second mining company, South African Manganese Limited, the forerunner of SAMANCOR. Two years later Guido Sacco formed a third company, Gloucester Manganese Mines (Postmasburg) Limited. The land was held for future development, as reasonable transportation facilities were not available at that time (De Jong 2010: 39).

The presence of manganese deposits in the Klipfontein Hills and observations made from prospecting trenches showed that the manganese ore bodies in the Western Belt were perhaps more irregular in shape than predicted by Hall. This resulted in the Geological Survey commissioning Dr. Louis Nel to undertake a second survey in 1927-1929 to map the entire manganese field in detail. His results, published in 1929, laid the foundation for much of the present-day knowledge of the geology of the Postmasburg manganese field (De Jong 2010: 39).

Mining by Union Manganese and South African Manganese started in earnest in 1927 in the Postmasburg field. Lack of proper transport facilities and the application of obsolete mining methods (everything was done by hand on a small scale) hampered progress. Manganese ores were collected from the open pits through a system of coco-pans and loaded on wagons (later trucks) that went to the Koopmansfontein railway station, about 100 km away (De Jong 2010:40).

The situation showed promises of being improved when the British Swiss International Corporation Limited provided capital for the construction of a railway line from Koopmansfontein to Postmasburg and Beeshoek in return for certain manganese mineral rights. A new joint company, The Manganese Corporation Limited, was formed and an agreement reached with the Minister of Railways and Harbours. The extended line to Beeshoek was opened in June 1930 and development of the ore bodies at Beeshoek, Doornfontein and Paling could take place. For this purpose, a narrow-gauge railway line was laid (De Jong 2010: 40).

However, the September 1929 crash on the New York Stock Exchange, followed by the Great Depression, brought all manganese mining operations to a halt, rendering the newly constructed Koopmansfontein / Beeshoek railway line dormant (De Jong 2010: 41).

May 1930 saw the launch of Ore & Metal Company Limited to import and export mineral concentrates, including manganese. The African Mining and Trust Company Limited were formed in December 1931 to acquire mineral rights and explore mineral deposits. In exchange for shares in African Mining and Trust, the founders transferred their entire Ore & Metal shareholding to the new company, while Guido Sacco transferred his Gloucester Manganese Mines shares. Thus, Ore & Metal and



Gloucester Manganese Mines became subsidiaries of African Mining and Trust, now a wholly owned subsidiary of Assore Limited (previously The Associated Ore & Metal Corporation Limited), which was formed in 1950 (De Jong 2010: 41).

During 1934 the South African Railways re-opened the railway line and extended it to Gloucester. In 1935 The Associated Manganese Mines of South Africa Limited ("Assmang") was formed. Anglovaal acquired all the mineral leases of the Manganese Corporation and these were ceded to Assmang, as were the shares of the Gloucester Manganese Mines Limited held by African Mining and Trust in exchange for shares in Assmang. The first shipment of manganese ore left Durban harbour in March 1936 and other shipments continued uninterruptedly (De Jong 2010: 41).

The post office at Glosam was started in 1937 and in 1954 a mining village was established here. Originally it consisted of twelve houses (Snyman 2000: 54, 98). The Associated Manganese Mines of South Africa Limited changed its name to Assmang on 30 May 2001, and was reorganised into three divisions: Manganese, Chrome and Iron Ore (De Jong 2010: 41). All the sites identified during the survey date to this period in time.

## **9. SITES IDENTIFIED DURING THE SURVEY**

### ***Miners boxes - Sites no 1, 13, 17, 25 & 26:***

These are the remains of buildings made from loose stones, called a 'Miners Box' (Personal communication: D. Coetzee). These were used by miners to keep their tools and as a shelter when they blasted on the mine (Figure 23). Sometimes it was even used to sleep in.

It usually only has three sides with the fourth left open. It dates to the earliest mining activities on site, probably between 1920 and 1940.

Site 1 lies outside of the area to be mined, with other between 60 and 130 from proposed mining areas.

Site 1 - GPS: 28°03'54.2"S; 23°02'43.7"E (Figure 24-25)

Here are two such Miners boxes, a few meters from each other. The first is approximately 3 x 3 m in size with stone walling of 1,5 m high. The second is larger, having measurements of 7 x 4 m and also is approximately 1,5 m high. This one may even have more than one room, but the fallen stones make it difficult to determine this precisely.



**FIGURE 23: HISTORIC PHOTO OF A MINERS BOX, 1920'S (CAIRNCROSS 1997).**



**FIGURE 24: REMAINS OF A MINERS BOX AT SITE NO. 1.**





**FIGURE 25: REMAINS OF THE SECOND MINERS BOX AT SITE NO. 1.**

Site 13 - GPS: 28°04'02.6"S; 23°02'17.1"E (Figure 26)

This one has measurements of 4 x 3 m and the stone walls are approximately 1 m high. It also has at least two rooms, indicated by a dividing wall.

The site lies 130 m from the area to be mined.



**FIGURE 26: REMAINS OF THE MINERS BOX AT SITE NO. 13.**



Site 17 - GPS: 28°04'03.8"S; 23°01'51.4"E (Figure 27)

This one has measurements of 3 x 2 m and the stone walls are approximately 3 m high. In front (at the entrance?) it has a stone with a number (311P7) painted thereon.



**FIGURE 27: REMAINS OF THE MINERS BOX AT SITE NO. 17.**

Site 25 - GPS: 28°03'32.09"S; 23°02'17.38"E (Figure 28)

This one has measurements of about 3 m x 2 m and is about 1,4 m high. Again it is built from stone. No entrance could be detected.



**FIGURE 28: REMAINS OF THE MINERS BOX AT SITE NO. 25.**



Site 26 - GPS: 28°04'03.8"S; 23°01'51.4"E (Figure 29-30)

This one has measurements of 3 x 2 m and is about 25 m from site number 25. It is about 1,4 m high and built from stone. It has a round metallic sheet that could have been part of the structure in the past. There also is a painted number on one of the stones (A575).



**FIGURE 29: REMAINS OF THE MINERS BOX AT SITE NO. 17.**



**FIGURE 30: NUMBER AT SITE NO. 26.**

**Cultural significance Table: Site 1, 13, 17, 25 & 26**

| <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:<br/>1 - Negligible/ 2 -Low/<br/>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                        | H   |
| 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                                   | Y                        | H   |
| 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>   | <b>6 – High</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**

$$= 6 \text{ (High)} \times 6$$

$$= 36$$

These sites are therefore regarded as having a field rating of Local Grade IIIB. The sites 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.

In this particular case, Site 1 Should be kept intact and preserved, meaning that a management plan should be drafted for the site. Sites number 13 and 17 may be demolished, but only after complete documentation thereof and only if Site number 1 remains intact. This documentation includes doing test excavations and drawing a site map.

***Old hostel area and recreation hall - Site no 2:***

This is the remains of the old hostel area on the mine (Figure 31). It dates to between the 1950's and 1960's and therefore is likely older than 60 years. It has been demolished and only a few bricks and other rubble remain as indication of its existence. Next to this the old recreation hall which currently is used as a store room (Figure 32). It also is not older than 60 years.

The site lies outside of the proposed mining impact area.

GPS: 28°05'04.3"S; 23°02'01.1"E



**FIGURE 31: AREA WHERE MINE HOSTELS USED TO STAND. IT ALSO SEEMS AS IF IT WAS USED AS A STOCK PILE AREA.**



**FIGURE 32: OLD RECREATION HALL CLOSE TO THE HOSTEL AREA.**



**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:<br/>1 - Negligible/ 2 -Low/<br/>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                   | Y                        | L   |
| 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>   |                          | 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**

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

$$= 4$$

This site is regarded as having a field rating of Local Grade IIIC. The description in this phase 1 heritage report is seen as sufficient recording (low significance) and it may be granted destruction.

The mine does not intend to do any work here at present. However, the hostel area has no significance and may be demolished further if needed. The hall can be utilized if needed, but it may be demolished if that is needed. As both structures are likely older than 60 years, a permit from SAHRA is needed.

***Glosam Mining Village - Site no 3:***

This is the Glosam mining village which was started in 1954. It consists of 34 houses, a social area (sports field and braai area) as well as other structures including a recreation hall (Figure 33 – 39; also see photographs in 2010 report).

Some of the houses are prefabricated, but the prefab walls were later on made more permanent as it was concreted by other additions. Some structures to the southeast of the village are not described in detail, but form part thereof.

The site lies outside of the proposed mining impact area.

GPS: 28°04'47.3"S; 23°02'20.0"E



**FIGURE 33: SIGN AT THE ENTRANCE OF THE GLOSAM VILLAGE WAS STILL INTACT IN 2010.**



**FIGURE 34: SIGN AT THE ENTRANCE OF THE GLOSAM VILLAGE, BROKEN IN 2017.**





**FIGURE 35: HOUSE NUMBER 1.**



**FIGURE 36: HOUSE NUMBER 6.**





**FIGURE 37: HOUSE NUMBER 10.**



**FIGURE 38: FRONT OF AMMOSAL HALL IN THE VILLAGE.**



**FIGURE 39: GOOGLE IMAGE OF GLOSAM VILLAGE.**

**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:<br/>1 - Neglible/ 2 -Low/<br/>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                        | M/H   |
| 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 | Y                        | M   |
| 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 | L                |
| 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 – Medium/ 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**

$$= 5 \text{ (Medium/ High)} \times 6$$

$$= 30$$

The field rating of the site therefore 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 village is older than 60 years and is regarded as being very unique and typical of such a mining village. Therefore at least the first sixteen houses, social area, hall and other structure within the inner circle of the village should be preserved. It may however be utilized for another purpose, being a youth camp, holiday resort or guest house. It would be good to also preserve the outer circle as it is part of the original lay-out plan, although most of the buildings are much younger.

The mine does not intend to do any work here at present. If needed, for any changes to the buildings older than 60 years, a permit would be required from the SAHRA.

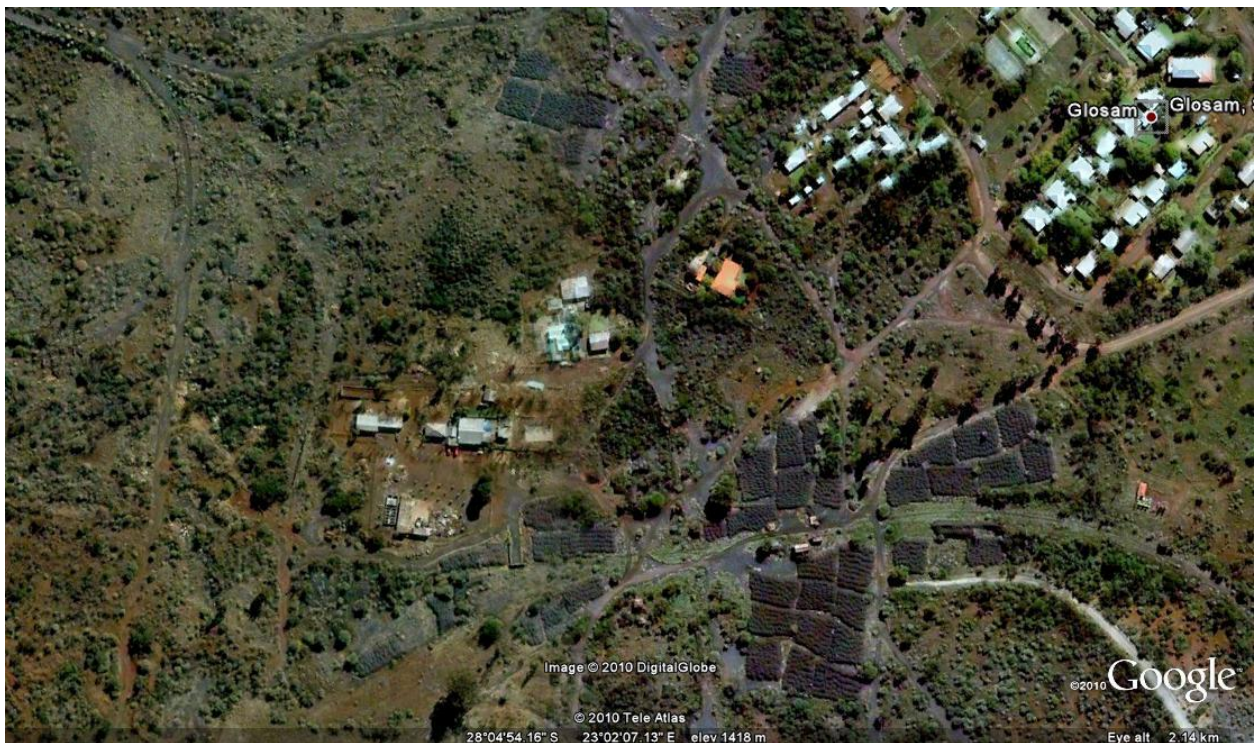
**Three mine houses - Site no 4:**

This is three mine houses at the top of a hill to the south-west of the village (Figure 40-41). These also are not older than 60 years (probably younger than those in the centre of the village) and therefore do not need to be preserved. It however is in a good condition and may be utilized with those in the village.

Other buildings used for residential and business purposes are also found nearby (Figure 42). These are even more recent.

The site lies outside of the proposed mining impact area.

GPS: 28°05'10.1"S; 23°02'06.7"E



**FIGURE 40: GOOGLE IMAGE SHOWING THE THREE HOUSES (CENTRE LEFT), OTHER HOUSES AND BUILDINGS AND ITS RELATION TO THE VILLAGE (TOP RIGHT).**





**FIGURE 41: HOUSE NUMBER 1 AT SITE NUMBER 4.**



**FIGURE 42: OTHER BUILDINGS IN THE AREA.**

**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:<br/>1 - Neglible/ 2 -Low/<br/>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                        | 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 | Y                        | 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                   | Y                        | 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>   |                          | 1 – Neglible  |

**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 (Neglible) x 5

= 5

The field rating of the site therefore is Local Grade IIIC. The description in this 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 mine does not currently have any plans that will impact here. Also, since the buildings are younger than 60 years, no permit is currently required.

***Foundation - Site no 5:***

This is the foundation of a house or office building (Figure 43). Nothing of the walls or roof remained, but it probably is older than 60 years. The site lies outside of the proposed mining impact area.

GPS: 28°04'49.7"S; 23°02'08.8"E



**Figure 43: Foundation of a building more than 60 years old.**



**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:<br>1 - Negligible/ 2 -Low/<br>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                  | 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>   |                   | 0 – No rating  |



**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**

= 0 (No rating) x 1

= 0

The site has no cultural heritage value and may therefore be demolished. Since it is older than 60 years, a permit would be required from the SAHRA. The mine does not currently have any plans that will impact here.

***Remains of industrial buildings - Site no 6:***

This is the remains of two associated industrial buildings within the mining area. The first has dimensions of 6 x 4 m and have concrete 9 pillars, approximately 2 m high. The second is a small brick building with walls of about 3 x 3 m and 2 m high. It was built in 1964, as indicated in an inscription in the cement (Figure 44-46). The site lies only 40 m from the proposed mining impact area.

GPS: 28°04'34.4"S; 23°01'51.5"E



**FIGURE 44: REMAINS OF AN INDUSTRIAL BUILDING IN THE MINING AREA.**



**FIGURE 45: (11-4-1964) INDICATED ON THE BUILDING.**



**FIGURE 46: SECOND BUILDING ASSOCIATED WITH THE FIRST.**

**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:<br/>1 - Negligible/ 2 -Low/<br/>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     | 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>   | 0 – No rating            |   |

**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**

= 0 (No rating) x 1

= 0

The site has no cultural heritage value and may therefore be demolished. This report is seen as ample mitigation. The structure is younger than 60 years and in a very poor condition. It may be demolished without a permit from SAHRA.

***Ore loading bays - Sites no 7, 14 and 19:***

This is the remains of ore loading bays constructed from concrete, corrugated iron and steel (Figure 47-49). It dates to the time after the megalisation of the mine (1960's) and therefore is younger than 60 years. The first of these are approximately 10 m high and 12 m long, with the second one being about 8 m long and 6 m high. The third one is approximately 19 m long and 6 m high.

Site 19 lies outside of the proposed mining impact area. Site 14 is 80 m from the area of impact and site 7 right inside.

GPS:

Site 7 - 28°04'19.1"S; 23°02'00.6"E

Site 14 - 28°03'38.3"S; 23°02'23.4"E

Site 19 - 28°05'13.1"S; 23°02'23.4"E





**FIGURE 47: REMAINS OF AN ORE LOADING BAY, SITE NO. 7.**



**FIGURE 48: REMAINS OF AN ORE LOADING BAY, SITE NO. 14.**



**FIGURE 49: REMAINS OF AN ORE LOADING BAY, SITE NO. 19.**

**Cultural significance Table: site 7, 14 and 19**

| <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:<br/>1 - Neglible/ 2 -Low/<br/>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                               | Y | L       |
| 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 2

= 4

The field rating for these sites are Local Grade IIIC. The description in the phase 1 heritage report is seen as sufficient recording (low significance) and it may be granted destruction. Since these sites are all younger than 60 years and in a very poor condition, it may be demolished without a permit from SAHRA.

***Loading platform - Site no 8:***

This is a loading platform, built from stone and cement from where ore was loaded onto trucks or carriages. The date, 1950, is scratched into the cement (Figure 50-51). The structure therefore is older than 60 years old.

The site lies 70 m from the proposed mining impact area.



GPS: 28°04'07.0"S; 23°01'58.2"E



**FIGURE 50: DATE (1950) SCRATCHED INTO THE CEMENT OF THE LOADING PLATFORM.**



**FIGURE 51: THE LOADING PLATFORM.**



**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:<br>1 - Negligible/ 2 -Low/<br>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                  | 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                                   | Y                 | L  |
| 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 6

= 12

The field rating for the site 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. As it is typical of a certain era in the mining industry, it should be preserved, perhaps as part of an interpretive route. It may be utilized in further mining activities, but a management plan would be needed for that.

***Base of water reservoir - Site no 9:***

This is the base for a water reservoir which is younger than 60 years as the date 1981 is inscribed in the concrete (Figure 52-53). It has a diameter of 10 m. A second, complete reservoir (Figure 54) was identified closer to the village. The site lies 70 m from the proposed mining impact area.

GPS: 28°04'22.3"S; 23°02'05.4"E



**FIGURE 52: REMAINS OF A WATER RESERVOIR.**



**FIGURE 53: DATE INSCRIBED IN THE CONCRETE.**



**FIGURE 54: RESERVOIR CLOSE TO THE VILLAGE.**

**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:<br>1 - Negligible/ 2 -Low/<br>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                  | 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>   | 0 – No rating     |  |

**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**

= 0 (No rating) x 1

= 0

The site has no cultural heritage value and may therefore be demolished. This report is seen as ample mitigation. The structure is younger than 60 years and in a very poor condition. It may be demolished without a permit from SAHRA.

***Office complex remains - Site no 10:***

This is the remains of different buildings (at least 5) made from bricks and concrete. These probably had the function of offices or an industrial use. One could be identified as a set of toilets which was probably used by workers (Figure 55-56). One of the porcelain toilets has the manufacturing date 16/1/1968 with a maker's mark on it. The function of other structures (Figure 57-60) could not be identified. From the bad state of the site it seems it was deliberately demolished. The site lies 140 m from the proposed mining impact area.

GPS: 28°04'25.3"S; 23°02'17.3"E



**FIGURE 55: REMAINS OF THE TOILET BUILDING.**



**FIGURE 56: PART OF THE ROW OF TOILETS INSIDE OF THE BUILDING.**



**FIGURE 57: REMAINS OF ONE OF THE OTHER BUILDINGS IN THE AREA.**





**FIGURE 58: STONE WALL IN THE AREA.**



**FIGURE 59: FOUNDATION OF ANOTHER BUILDING IN THE AREA.**



**FIGURE 60: ANOTHER ASSOCIATED BUILDING.**

**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:<br>1 - Neglible/ 2 -Low/<br>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                  | 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>   |   | 0 – No rating |

**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**

= 0 (No rating) x 1

= 0

The site has no cultural heritage value and may therefore be demolished. This report is seen as ample mitigation. The structures are younger than 60 years and in a very poor condition. It may be demolished without a permit from SAHRA.

***Various remains of brick buildings - Site no 11:***

These are a number of brick and cement structures (at least 16) and other rubble on the opposite side of the road from site number 10 (Figure 61-62). The one that is best preserved seems to have three rooms, is approximately 4 m high and has sides of 10 x 3 m.

It probably also was part of the industrial or office setup at the mine, or it may have been residential. It is younger than 60 years.

The site lies outside of the proposed mining impact area.

GPS: 28°04'23.5"S; 23°02'33.6"E



**FIGURE 61: REMAINS OF ONE OF THE BUILDINGS AT SITE NUMBER 11.**



**FIGURE 62: REMAINS OF ANOTHER BUILDING IN THE AREA.**

**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:<br>1 - Negligible/ 2 -Low/<br>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                  | 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>   |                   | 0 – No rating  |



**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**

= 0 (No rating) x 1

= 0

The site has no cultural heritage value and may therefore be demolished. This report is seen as ample mitigation. The structures are younger than 60 years and in a very poor condition. It may be demolished without a permit from SAHRA.

***Farm yard - Site no 12:***

These sites lie outside of the mining area. It is however included as it was identified during the previous survey in 2010 and in order not to get confused with a number being left out.

It is a camp, probably for cattle, with a few old and one new building inside (Figure 63). It seems to be used as stores or livestock enclosures. Some small dams are also found in the vicinity as well as a cattle dip and feeding area somewhat to the east.

The site lies outside of the proposed mining impact area.

GPS: 28°04'40.5"S; 23°03'12.6"E



**FIGURE 63: ONE OF THE BUILDINGS INSIDE OF A FENCED IN CATTLE CAMP.**

**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:<br/>1 - Negligible/ 2 -Low/<br/>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  | N                        |   |

|   |   |               |
|---|---|---------------|
| technical achievement at a particular period  |   |               |
| 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>   |   | 0 – No rating |

**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**

$$= 0 \text{ (No rating)} \times 1$$

$$= 0$$

The site has no cultural heritage value and may therefore be demolished. This report is seen as ample mitigation. The structures are younger than 60 years. It may be demolished without a permit from SAHRA.

***Railway sidings - Site no 15 and 20:***

These sites lie just outside of the mining area. Both are not in use any more. At Erstrand siding there are no building remains left and one can only see the signage. At Glosam siding the ruins of some buildings are visible. These are however in a very bad state of decay. It seems everything may be just older than 60 years.

Both sites lie outside of the proposed mining impact area.



GPS:

Site 15 - 28°05'14.1"S; 23°02'39.2"E – Ertsrand Siding (Figure 64)

Site 20 - 28°06'36.9"S; 23°02'59.5"E – Glosam Siding (Figure 65)



**FIGURE 64: THE ERTSRAND SIDING.**



**FIGURE 65: THE GLOSAM SIDING.**

**Cultural significance Table: site 15 and 20**

| <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:<br/>1 - Negligible/ 2 -Low/<br/>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                  | 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>3 – Low/ 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**

= 3 (Low/ Medium) x 1

= 3

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.

***Concrete building remains - Site no 16:***

This is a building, likely associated to the loading platform (site 8). It is built with stone and concrete, with sizes of approximately 3 x 4 m as well as some loosely packed stone walling (Figure 66).

The site lies 30 m from the proposed mining impact area.

GPS: 28°04'07.6"S; 23°01'56.3"E



**FIGURE 66: BUILDING ASSOCIATED WITH LOADING PLATFORM.**

**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:<br/>1 - Negligible/ 2 -Low/<br/>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     | 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>   | 0 – No rating            |   |

**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**

= 0 (No rating) x 1

= 0

The site has no cultural heritage value and may therefore be demolished. Since it is probably just older than 60 years, a permit would be required from the SAHRA.

***Farm yard - Site no 18:***

This is an abandoned farm yard consisting of the remains of a house (without walling), other concrete floors, a dam, fences etc. The house floor has a size of 18 x 11 m (Figure 67). It likely dates to the 1960's.

The site lies outside of the proposed mining impact area.

GPS: 28°05'47.4"S; 23°02'33.6"E



**FIGURE 67: HOUSE REMAINS 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:<br/>1 - Negligible/ 2 -Low/<br/>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     | 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>   | 0 – No rating            |   |

**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**

= 0 (No rating) x 1

= 0

The site has no cultural heritage value and may therefore be demolished. Since it is probably younger than 60 years, no permit would be required.

***Metal framework of an industrial building - Site no 21:***

The building is probably related to the railways as it is located directly adjacent to the railway track. It consists of steel poles forming a frame and a concrete floor (Figure 68).

The site lies outside of the proposed mining impact area.

GPS: 28°06'28.4"S; 23°02'59.7"E



**FIGURE 68: STEEL FRAME OF A RAILWAY BUILDING.**

**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:<br>1 - Negligible/ 2 -Low/<br>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                  | 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>   | 0 – No rating     |  |

**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**

= 0 (No rating) x 1

= 0

The site has no cultural heritage value and may therefore be demolished. Since it is probably just older than 60 years, a permit would be required from the SAHRA.

**Grave yards - Site no 22, 23 & 24:**

Site 22:

This is a large grave yard consisting of at least 304 graves. All of these are unmarked and packed with stones (Figure 69). Two headstones were mentioned by a mine employee, but only one of these could be located (Figure 70). It however is not possible to determine from which grave it comes. It has no dates indicated and the surname is Zakapea.

All the graves are thus unknown and needs to be handled similar to heritage graves. There are signs that the grave site was previously fenced in. Mining excavation has also taken place on the southern side of the site.

The site lies 450 m from the proposed mining impact area.

GPS: 28°03'37.17"S; 23°02'33.78E



**FIGURE 69: SOME OF THE GRAVES AT SITE NO. 22.**



**FIGURE 70: THE HEADSTONE FOUND AT THE SITE.**

**Site 23:**

This is a small grave yard located next to an active road to the south. There are signs that the grave site was used for dumping associated with mining activities in the past. The site consists of four graves, oriented east to west and intersected by a long heap of rocks (dumping) dividing the graves two on each side.

The graves are unmarked with stone dressing, and one had a cactus growing out on top (Figure 71). All the graves are thus unknown and needs to be handled similar to heritage graves.

The site lies 520 m from the proposed mining impact area.

GPS: 28°05'1.08"S 23°02'17.67"E



**FIGURE 71: ONE OF THE GRAVES AT SITE NO. 23.**

#### Site 24:

This is a large grave yard consisting of at least 780 graves (Figure 72-73). The site is about 326 m long and about 90 m wide and is surrounded by a fence. It is located next to a road to the east and a railroad track to the west. The site was overgrown with vegetation making it difficult to locate every grave.

Grave goods are sparsely distributed and some associated with mining like the shovels. The graves are orientated east to west. The approximate number of graves older than 60 years is four. The approximate number of graves younger than 60 years is nine. The remainder is unmarked. The oldest grave had no name, but only the date of death being 02/11/1938. The youngest grave is that of Anthony "Fusi" Koloï - 09/09/2006.

Materials of graves stones and dressings: Grave stones and markers were made of granite, slate, cement and metal plaques. The grave dressings are made with granite, bricks, white gravel and natural stones.

The following legible information was noted:

Colline Jr. Koloï 23/03/2002  
Elrico Sello "Ricky" Koloï 06/02/1999  
Anthony "Fusi" Koloï 09/09/2006  
Violet G. van Rensburg -/-/1982  
Johannes Nicholas Nero 25/04/1982  
Mozorina Rotha Vos 01/07/1982  
Droks Susenchaba 02/03/1939  
G.B.J. Malus 02/09/1966  
Gopolang Ginger Matlhare 16/01/1977  
Karel van Skalkwyk 18/08/1971  
Willie van Rensburg –



All three categories of graves are thus present. Those older than 60 years and the unknown ones needs to be handled as heritage graves.

The site lies 450 m from the proposed mining impact area.

GPS: 28°07'30.56"S 23°02'37.86"E



**FIGURE 72: SOME OF THE GRAVES AT SITE NO. 24.**



**FIGURE 73: ONE OF THE HEADSTONES AT SITE NO. 24.**

**Cultural significance Table: Sites no. 22, 23 & 24**

| A place is considered to be part of the national estate if it has cultural significance because of - | Applicable or not | Rating:<br>1 - Neglible/ 2 -Low/<br>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                                 | 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 | M-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 – M-H |

**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

$$\begin{aligned}\text{Field-rating} &= \text{Cultural significance} \times \text{Integrity} \\ &= 5 \text{ (M-H)} \times 3 \\ &= 15\end{aligned}$$

The sites receive a field rating of 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.

When dealing with graves there are two options:

- Option 1 would be to fence the graves in and have a management plan drafted for the sustainable preservation thereof (“Option 1”). This should be written by a heritage expert. Option 1 is implemented when indirect or secondary impact is foreseen.
- Option 2 is implemented when a direct impact is foreseen. Should any danger be posed to the graves, Option 2 will have to be taken. This option is to exhume the mortal remains and then to have it relocated (“Option 2”). For this a detailed motivation will have to be written and applied for to SAHRA. If approved, the specific procedure should be followed which includes social consultation. For graves younger than 60 years, only an undertaker is needed. For those older than 60 years and unknown graves an undertaker and archaeologist is needed. Permits should be obtained from the Burial Grounds and Graves unit of SAHRA. This procedure is quite lengthy and involves social consultation.

## **10. CONCLUSION AND RECOMMENDATIONS**

The HIA of the indicated areas was completed successfully. As indicated twenty-six sites of cultural heritage significance were identified (Figure 74-78).



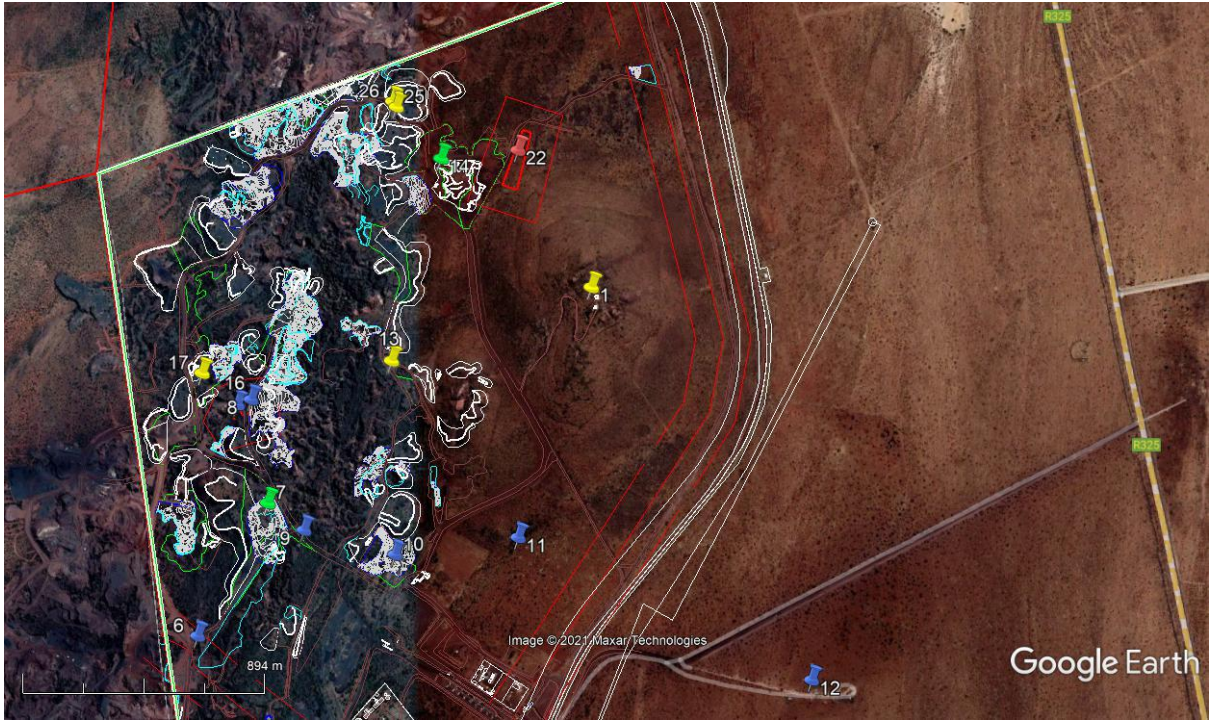
**FIGURE 74: GOOGLE EARTH IMAGE INDICATING THE SITES IDENTIFIED.**



**FIGURE 75: IDENTIFIED SITES IN CONTEXT WITH PROPOSED MINING ACTIVITIES (TURQUISE).**

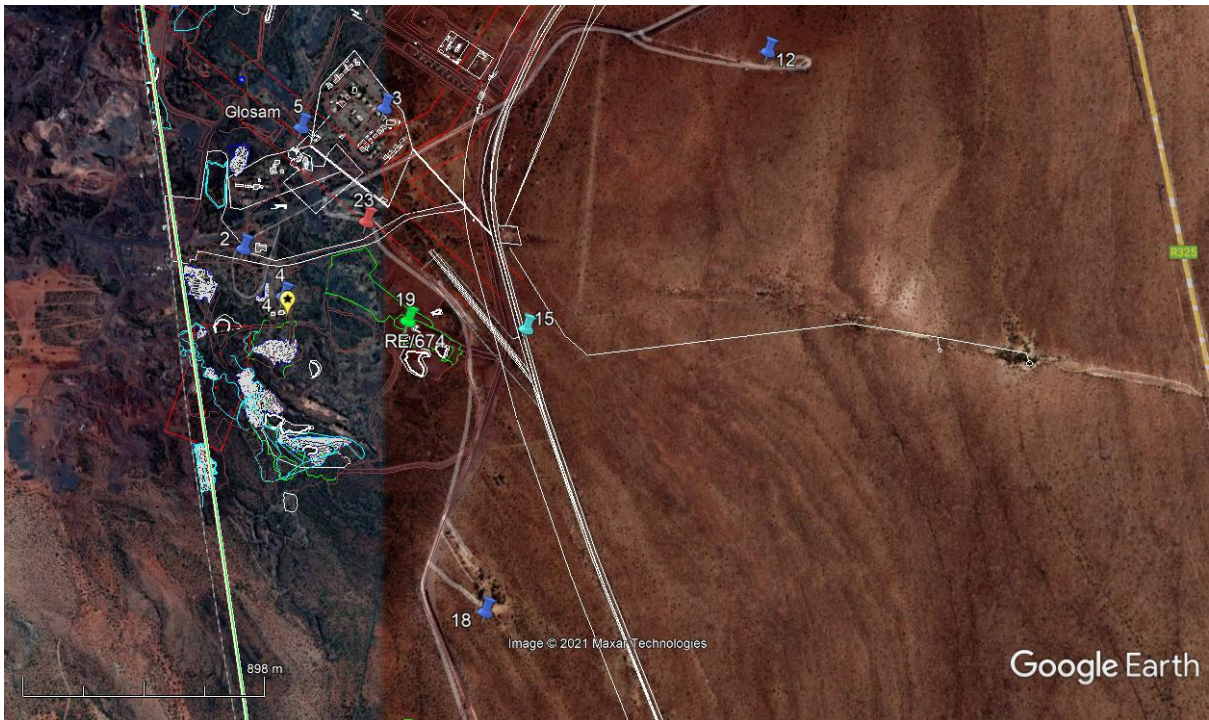
- YELLOW – MINERS BOXES**
- RED – GRAVES**
- GREEN – ORE LOADING BAYS**
- LIGHT BLUE – RAILWAY SIDINGS**
- DARK BLUE – OTHER (BUILDINGS, INFRASTRUCTURE ETC.)**





**FIGURE 76: SITES IDENTIFIED TOWARDS THE NORTH OF THE GLOSAM VILLAGE.**

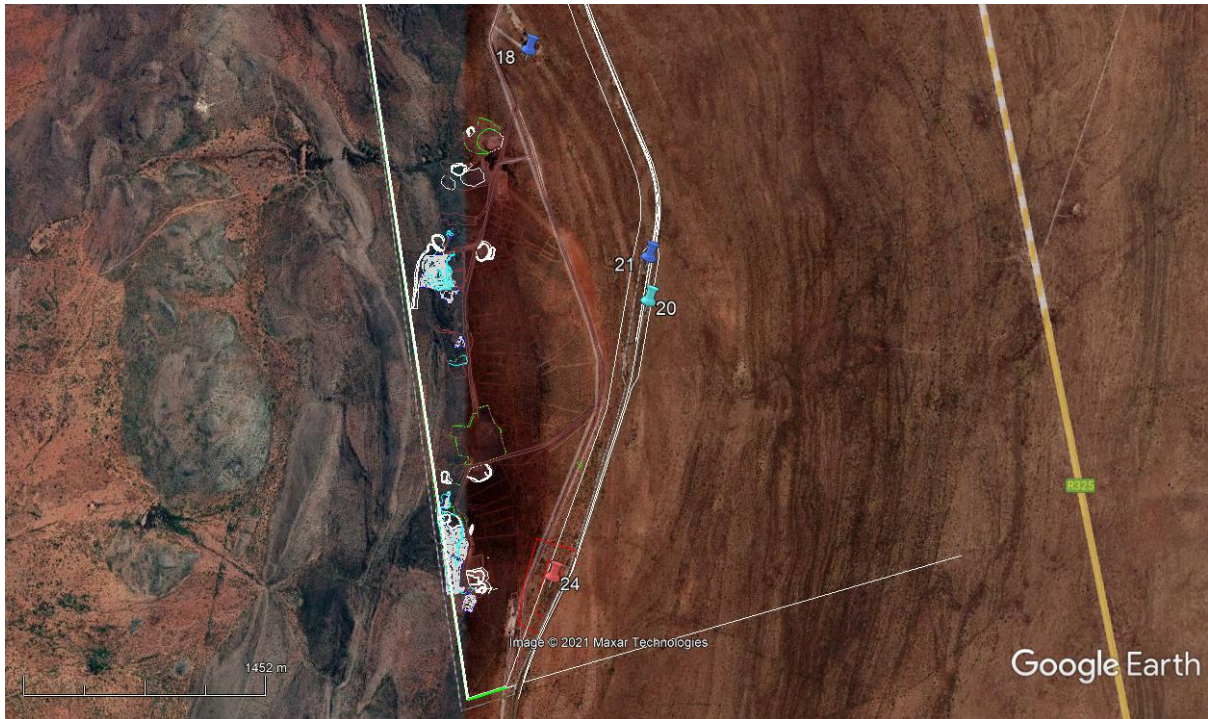
**RED – GRAVES                      YELLOW – MINERS BOXES**  
**GREEN – ORE LOADING BAYS**  
**DARK BLUE – OTHER (BUILDINGS, INFRASTRUCTURE ETC.)**



**FIGURE 77: SITES IDENTIFIED TOWARDS THE SOUTH OF THE GLOSAM VILLAGE (EXCLUDING EXTREME SOUTH).**

**RED – GRAVES                      GREEN – ORE LOADING BAYS**  
**DARK BLUE – OTHER (BUILDINGS, INFRASTRUCTURE ETC.)**





**FIGURE 78: SITES IDENTIFIED TOWARDS THE EXTREME SOUTH OF THE GLOSAM VILLAGE.**

**RED – GRAVES**

**LIGHT BLUE – RAILWAY SIDINGS**

**DARK BLUE – OTHER (BUILDINGS, INFRASTRUCTURE ETC.)**

The following is recommended:

- Site 12 (farm yard) and 15 and 20 (railway sidings) are all outside of the development boundary. Site 12 has no cultural heritage value and this report is seen as ample mitigation. The structures are younger than 60 years. It needed, may be demolished without a permit from SAHRA. The mine however indicated that it will be left as it is.
- The railway sidings receive a field rating of Local Grade IIIIC. The description in the phase 1 heritage report is seen as sufficient recording and it may be granted destruction if needed. The mine however indicated that it will be left as it is.
- The remains of industrial building (site 6) and the base of a water reservoir (site 9) is reasonably close to the mining development. However both have no cultural heritage value. This report is seen as ample mitigation. The structures are younger than 60 years and in a very poor condition. It may be demolished without a permit from SAHRA. The mine however indicated that it will be left as it is.

- The office complex remains (site 10), various remains of brick buildings (site 11) and the farm yard (site 18) has no cultural heritage value and lies outside of the area of impact. This report is seen as ample mitigation. The structures are younger than 60 years and in a very poor condition. It may be demolished without a permit from SAHRA. The mine however indicated that it will be left as it is.
- The foundation (site 5) and metal framework of an industrial building (site 21) has no cultural heritage value and may therefore be demolished. It does however lie outside of the area of impact. Since it is older than 60 years, a permit would be required from the SAHRA. The mine however indicated that it will be left as it is.
- The concrete building remains (site 16) lies 30 m from the area of impact but has no cultural heritage value. It may therefore be demolished. Since it is older than 60 years, a permit would be required from the SAHRA. The mine however indicated that it will be left as it is.
- For the three mine houses (site 4) the field rating of the site is Local Grade IIIC. The description in this phase 1 heritage report is seen as sufficient recording 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 mine does not currently have any plans that will impact here. Also, since the buildings are younger than 60 years, no permit is currently required. The mine however indicated that it will be left as it is.
- The old hostel area and recreation hall (site 2) is regarded as having a field rating of Local Grade IIIC. The description in this phase 1 heritage report is seen as sufficient recording and it may be granted destruction. As both structures are older than 60 years, a permit from SAHRA is needed. The mine however indicated that it will be left as it is since it lies outside of the area of impact.
- The field rating for the ore loading bays (site 7, 14 and 19) Local Grade IIIC. The description in the phase 1 heritage report is seen as sufficient recording and it may be granted destruction. Since these sites are all younger than 60 years and in a very poor condition, it may be demolished without a permit from SAHRA. The mine however indicated that it will be left as it is, although no 7 is within the area of impact and no 14 approximately 80 m thereof. No 19 is outside of the area of impact.
- The field rating of the Glosam Mine Village (site 3) is Local Grade IIIB. The site should be included in the heritage register and may be mitigated. Mitigation is subject to a permit application lodged with the relevant heritage authority.
- The village is older than 60 years and is regarded as being very unique and typical of such a mining village. Therefore at least the first sixteen houses, social area, hall and other structure within the inner circle of the village should

be preserved. It may however be utilized for another purpose, being a youth camp, holiday resort or guest house. It would be good to also preserve the outer circle as it is part of the original lay-out plan, although most of the buildings are much younger.

- The mine does not intend to do any work here at present. If needed, for any changes to the buildings older than 60 years, a permit would be required from the SAHRA.
- The Miners boxes (sites 1, 13, 17, 25 and 26) are regarded as having a field rating of Local Grade IIIB. The sites should be included in the heritage register and may be mitigated. Mitigation is subject to a permit application lodged with the relevant heritage authority. Site 1 is outside of the area of impact with all the others reasonably close, between 60 and 85 m thereof. Although the mine indicated that it will be left as it is, it is possible that there can be secondary impact due to mining activities (falling of walls etc.). Thus mitigation is needed.
  - Mitigation would entail to keep site 1 intact and preserve it, meaning that a **management plan should be drafted** for the site. It should also be fenced in.
  - Sites number 13, 17, 25 and 26 **should be documented** so that the information remains available should it be damaged. This documentation includes doing test excavations and drawing a site map of each.
- The loading platform (site 8) has a field rating of Local Grade IIIB. The site should be included in the heritage register and may be mitigated. Mitigation is subject to a permit application lodged with the relevant heritage authority. As it is typical of a certain era in the mining industry, it should be preserved, perhaps as part of an interpretive route. It may be utilized in further mining activities, but **a management plan would be needed** for that. The mine however indicated that it will be left as it is. Due to it being very close to the area of impact (70 m) secondary impact is possible and thus it is recommended that the site **be fully documented**. This would be a photographic and mapping documentation.
- The grave yards (site 22, 23 and 24) receives a field rating of Local Grade IIIB. It should be included in the heritage register and may be mitigated. Mitigation is subject to a permit application lodged with the relevant heritage authority.
- When dealing with graves there are two options:
  - Option 1 would be to fence the graves in and have a management plan drafted for the sustainable preservation thereof (“Option 1”). This should be written by a heritage expert. Option 1 is implemented when indirect or secondary impact is foreseen.
  - Option 2 is implemented when a direct impact is foreseen. Should any danger be posed to the graves, Option 2 will have to be taken. This option is



to exhume the mortal remains and then to have it relocated (“Option 2”). For this a detailed motivation will have to be written and applied for to SAHRA. If approved, the specific procedure should be followed which includes social consultation. For graves younger than 60 years, only an undertaker is needed. For those older than 60 years and unknown graves an undertaker and archaeologist is needed. Permits should be obtained from the Burial Grounds and Graves unit of SAHRA. This procedure is quite lengthy and involves social consultation.

- In this case it seems there will not be impact, Thus, **Option 1 is recommended**. A buffer zone of at least 50 m should be implemented.
- The proposed development may continue, but only after receiving the necessary approval from SAHRA.
- It should 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 it also is possible that some sites may only become known later on. 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 regards 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 in order 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, which could include adapting the HIA or not. 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 removal of the archaeological/ historical material was done.*

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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.