Archaetnos Culture & Cultural
Resource Consultants
BK 98 09854/23

A REPORT ON THE UPDATING OF A PREVIOUS CULTURAL HERITAGE IMPACT ASSESSMENT FOR THE EMPR ALIGNMENT AND CONSOLIDATION PROCESS AT ANGLO AMERICAN PLATINUM: RUSTENBURG PLATINUM MINES – RUSTENBURG SECTION, NORTHWEST PROVINCE

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REPORT NO.: AE01411V

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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 are 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.

SUMMARY

Archaetnos cc was requested by WSP Environmental (Pty) Ltd to conduct the necessary assessment for the update of a previous cultural heritage impact assessment (HIA). This is for the EMPR Alignment and Consolidation Process at Anglo American Platinum: Rustenburg Platinum Mines: Rustenburg Section. This is close to the town of Rustenburg in the Northwest Province.

The previous HIA report was done in 2005 and it was uncertain whether some of the recommendations in that report had been done. Therefore the South African Heritage Resources Agency (SAHRA) requested an update.

A survey of the available literature was undertaken in order to obtain background information regarding the proposed project area and the surrounding environment. As part of this the previous HIA report was also studied. This was followed by the field survey which was conducted according to generally accepted HIA practices. However, it was not aimed at identifying new sites, but only to visit and re-assess known sites. However, four new sites were identified. These are:

New Sites: Bathopele Mine				
25 41 38.5; 27 41 42.8	Graves	High		Should be mitigated
25 41 38.5; 27 41 42.8	Recent stone walling	Low		
Turffontein North Mine				
25 37 58.7; 27 21 30.4	Late Iron Age walling	Moderate		
25 40 54.1; 27 25 10.6	Grave yard	High		Should be mitigated

Some sites have already been disturbed by mining and related activities, but this is in line with the previous HIA report. Some of these have been destroyed. The updated report discusses all the sites and gives the necessary recommendations in this regard. Five sites from the Huffman report were never mitigated and two of the four new ones also need mitigation.

It should be noted however that the subterranean presence of archaeological and/or historical sites, features or artefacts is always a possibility. As such, care should be taken during any work in the entire area, that if any historical sites, features or artefacts are discovered, a qualified archaeologist should be commissioned to investigate. It is also important to take cognisance of the applicant's responsibility to submit this report via the SAHRIS System on the South African Heritage Resource Agency (SAHRA) website. No work on site may commence before receiving the necessary comments from the SAHRA.

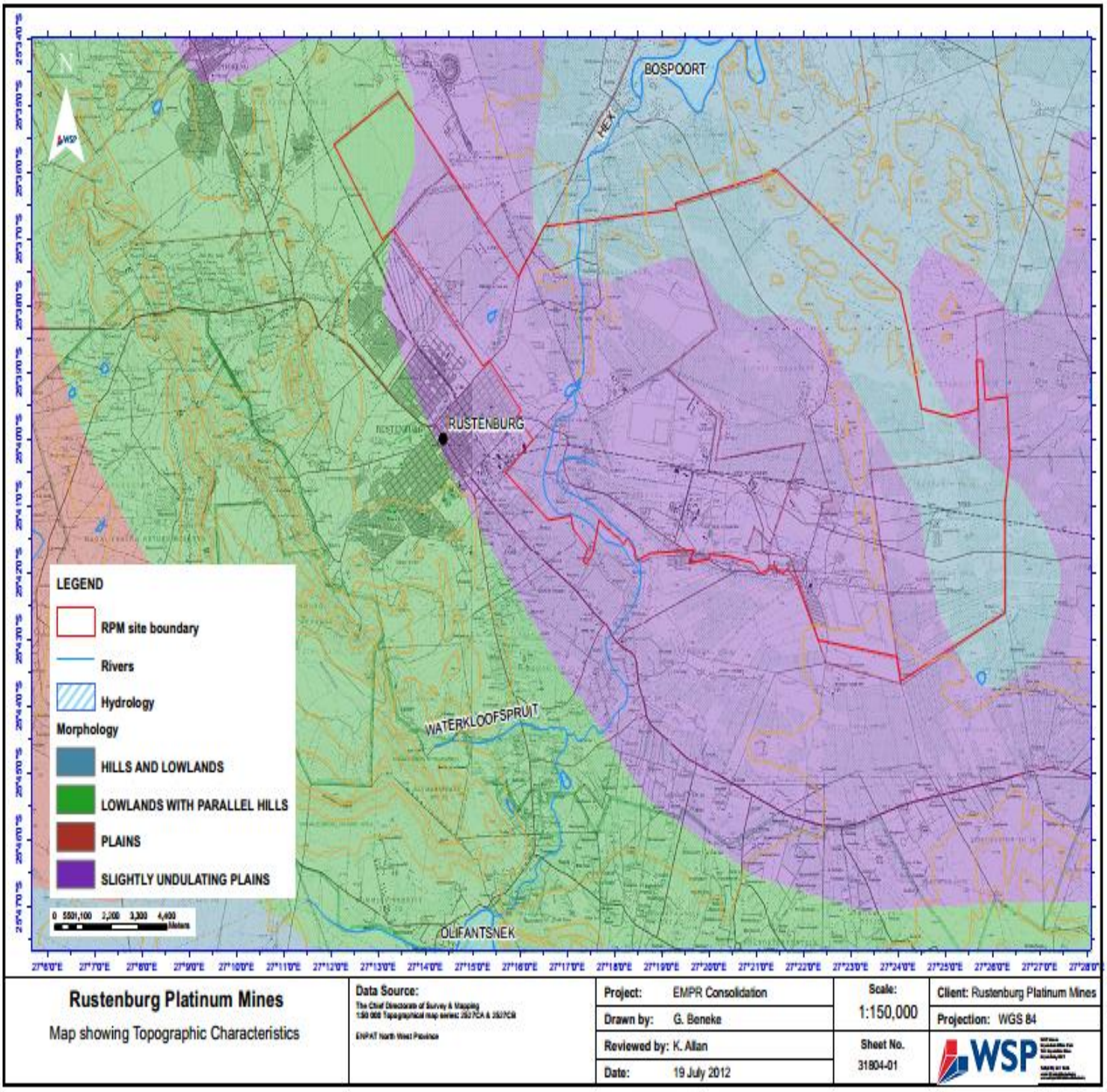
CONTENTS

1. INTRODUCTION

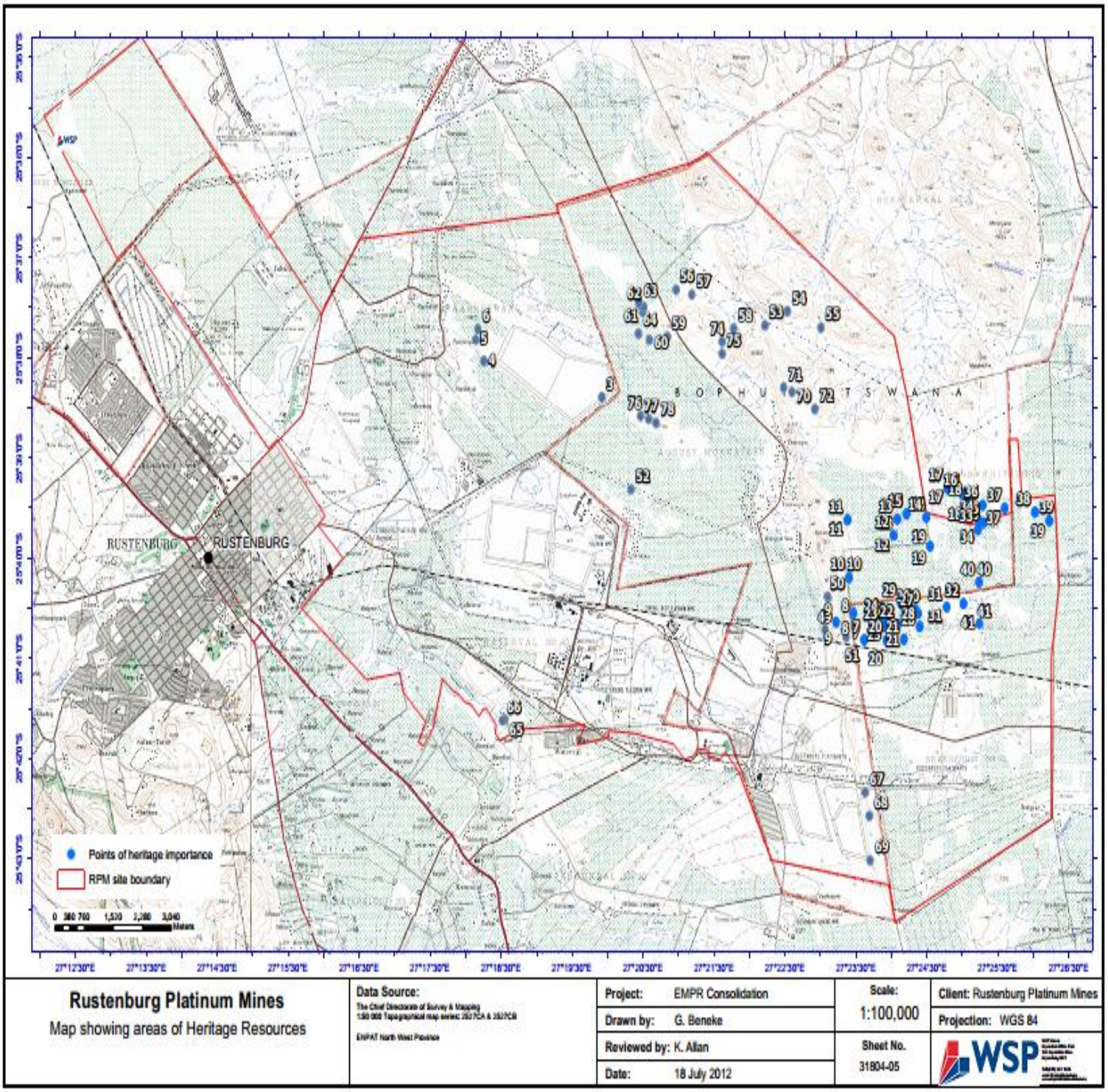
Archaetnos CC was requested by WSP Environmental (Pty) Ltd to conduct the necessary assessment for the update of a previous cultural heritage impact assessment (HIA). This is for the EMPR Alignment and Consolidation Process at Anglo American Platinum: Rustenburg Platinum Mines: Rustenburg Section. This is close to the town of Rustenburg in the Northwest Province (Map 1-2).

The previous HIA report was done in 2005 and it was uncertain whether some of the recommendations in that report had been done (Map 3). Therefore the South African Heritage Resources Agency (SAHRA) requested an update.

Map 1: Location of Rustenburg in the Northwest Province.



Map 2: Site boundary of Rustenburg Platinum Mines.



Map4: Cultural heritage sites in the RPM area.

2. TERMS OF REFERENCE

The Terms of Reference for the survey were to update the Heritage assessment done in 2005 and to specifically indicate whether mitigation proposed in this study was done. In order to comply, the following was done:

1. Visit objects, sites, occurrences and structures of an archaeological or historical nature (cultural heritage sites) identified during previous surveys and located on the property (see Appendix A);

2. Study background information on the site to be developed;

3. Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value (see Appendix B);

4. Describe the potential impact of the Proposed Project on cultural remains, according to a standard set of conventions;

5. Recommend suitable mitigation measures to minimise potential negative impacts on the cultural resources; and

6. Review applicable legislative requirements.

3. LEGISLATIVE REQUIREMENTS

Aspects concerning the conservation of cultural resources are dealt with primarily through two Acts, namely the National Heritage Resources Act (Act 25 of 1999) and the National Environmental Management Act (Act 107 of 1998).

3.1 The National Heritage Resources Act

According to the National Heritage Resources Act (NHRA) the following are considered protected as heritage resources:

a. Archaeological artefacts, 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; and
i. Objects, structures and sites or 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; and
i. Movable objects (e.g. archaeological, paleontological, meteorites, geological specimens, military, ethnographic, books etc.).

An HIA is the process to be followed in order to determine whether any heritage resources are located within the area proposed for development as well as the potential impact of the proposed development thereon. An Archaeological Impact Assessment only looks at archaeological resources. The different phases of the HIA process are described further in Appendix E. An HIA should be undertaken 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^2 or involve three or more existing erven or subdivisions thereof;
d. Re-zoning of a site exceeding 10 000 m^2; and
e. Any other category provided for in the regulations of South African Heritage Resource Agency (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.

The act defines a structure as 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.

According to the act 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 NHRA states that no person may, without a permit issued by the responsible heritage resources authority (national or provincial):

a. Destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or paleontological site or any meteorite;
b. Destroy, damage, excavate, remove from its original position, collect or own any archaeological or paleontological material or object or any meteorite;

c. Trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or paleontological material or object, or any meteorite;
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; and/or
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 a registered archaeologist, after receiving a permit from the SAHRA. In order to demolish such a site or structure, a destruction permit from SAHRA is required.

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; and
f. Human remains.

In terms of Section 36(3) of the NHRA, no person may, without a permit issued by the SAHRA:

a. Destroy, damage, alter, exhume or remove from its original position of otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;
b. Destroy, damage, alter, exhume or remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; and/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 Human Tissue Act (Act 65 of 1983) (HTA) 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 **HTA**.

3.2 The National Environmental Management Act

The National Environmental Management 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 minimised and remedied.

4. 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). 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 include the possible maintenance of such sites in situ, or when impossible, the restoration of the functionality of the cultural heritage in a different location. When cultural historical and archaeological artefacts and structures need to be removed is 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 effected communities. Again professionals should carry out the work and adhere to the best available techniques.

It is necessary to engage into consultation with affected communities. This entails that access to such communities should be granted 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 effected 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.

5. METHODOLOGY

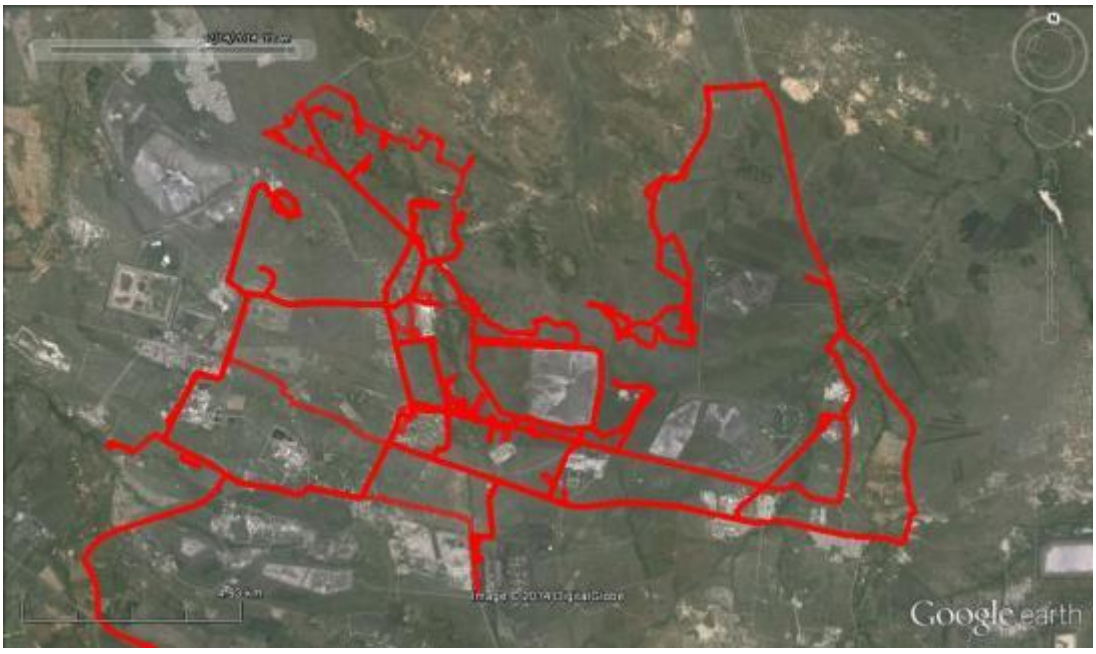
5.1 Survey of literature

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

5.2 Field survey

The survey was conducted according to generally accepted HIA practices. However, it was not aimed at locating all possible objects, sites and features of cultural significance in the area in which the Project is proposed as known sites, identified during a previous survey had to visited and re-assessed.

If required, the location/position of any objects, sites and features of cultural significance was determined by means of a Global Positioning System (GPS)[1], while photographs were also taken where needed. The site survey was undertaken by means of an off-road vehicle and on foot (Map 4). The size of the RPM area is not known, but it extends over various farms and properties. The survey took fifty-six hours to complete.



Map 4: GPS track of the surveyed area.

[1] A Garmin Oregon 550 with an accuracy factor of between 3 and 5 meters.

5.3 Oral histories

People from local communities are interviewed in order to obtain information relating to the surveyed area. However, it should be understood that this is activity is not required under all circumstances as it only comes to the fore once a specific community is directly involved. When applicable, this information obtained is included in the report write-up and linked to the information sources.

5.4 Documentation

All sites, objects features and structures identified are documented according to the general minimum standards accepted by the archaeological profession. This includes photographic documentation, description of the sites and taking GPS co-ordinates.

5.5 Evaluation of Heritage sites

The evaluation of heritage sites is undertaken by applying a field rating to 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.

6. CONDITIONS AND ASSUMPTIONS

The following conditions and assumptions have a direct bearing on the survey and this 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, structure and artefacts of importance, either individually or in groups, in the history, architecture and archaeology of human (cultural) development (including graves and cemeteries).

2. The significance of the sites, structures and artefacts 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 undertaken 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 cognisance of the relevant legislation.

6. This report should be read in conjunction with the report by Huffman (2005) as the latter provides additional context.

7. DESCRIPTION OF THE ENVIRONMENT

The heritage sites surveyed for this updated Heritage Impact Assessment is situated to the west to the town of Rustenburg. The sites are located around the Anglo American Platinum mining facilities, such as the Paardekraal Tailings Storage Facility, the Tailings storage Facility, the Western limb Retreatment Plant and Concentrator, the Khomanani Mine, the Bathopele Mine and the Siphumelele Mine.

The topography of the area includes various hills. It is clear that the area has been disturbed by animal, human and mining activities. Parts of the land are still used for the grazing of cattle. The grass cover ranges from short too high in different parts of the study area with thorn bush, mostly sickle bush) occurring almost over the whole area. A few trees could be seen.

Since this is a very large area, the indication of the environment can only be very vague. More information are however included in the detailed discussion of sites below.

8. HISTORICAL CONTEXT

During the survey most of the 78 sites identified previously were visited. Some could not be located since they were already demolished in the process of the mining development. However, all of these were demolished in line with the recommendations of the previous heritage study (Huffman 2005). Four new sites were also identified. In order to understand these sites, as well as possible finds that could be unearthed during construction activities, 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; and
- Late Stone Age (LSA) 40 000 years ago – 1850 - A.D.

The closest known Stone Age site in the vicinity of the surveyed area is a rock art site to the northeast. A number of Late Stone Age sites are also known from the Magaliesberg Mountains. Rock engravings are found to the south and east of Rustenburg. These date back to the Late Stone Age (Bergh 1999: 4-5).

No natural shelter exists, although the Magaliesberg Mountain Range is only a few kilometers to the south of the site. The area probably provided good grazing and therefore it is possible that Stone Age people may have utilized the site for hunting purposes. One may therefore find Stone Age material out of context lying around, although none was 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 artefacts (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; and
- 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.; and
- Late Iron Age (LIA) 1300 – 1840 A.D.

Many Late Iron Age sites have been identified in the area around the towns of Rustenburg, Koster and Groot Marico as well as in the Waterberg Mountains which excludes the surveyed area (Bergh 1999: 7-8). During earlier times this part of the Northwest Province was inhabited by Tswana groups, namely the Fokeng and Kwena. These people fled from Mzilikazi during the Difaquane, but later on returned (Bergh 1999: 9-11).

Since the environment has been totally disturbed, one would not expect to find large Iron Age sites. The close proximity to the Magaliesberg Mountain may however mean that people used the plains and therefore isolated pottery may well be present.

8.3 Historical Age

The historical age began with the first recorded oral histories in the area. It includes the moving into the area of people that were literate. This era is often referred to as the Colonial era or the recent past.

Due to factors such as population growth and a decrease in mortality rates, more people inhabited the country during the recent historical past. Therefore, much more cultural heritage resources from this era have been left on the landscape. It is important to note that all cultural resources older than 60 years are potentially regarded as part of the heritage and that detailed studies are required in order to determine whether these indeed have cultural significance. Factors to be considered include aesthetic, scientific, cultural and religious value of such resources.

Early travellers have moved through this part of the Northwest Province. This included Coenraad de Buys in 1821 and 1825, David Hume in 1825, Robert Scoon and William McLuckie in 1827 and 1829 and Dr. Robert Moffat and Reverend James Archbell in 1829 (Bergh 1999: 12, 117-119).

Hume again moved through this area in 1830 followed by the expedition of Dr. Andrew Smith in 1835 (Bergh 1999: 13, 120-121). Hume again moved through the area with Scoon in 1835. In 1836 William Cornwallis Harris visited the area. The well-known explorer Dr. David Livingston passed through this area in 1847 (Bergh 1999: 13, 119-122).

In 1837 the Voortrekkers also moved through the Swartruggens area (Bergh 1999: 11). During this year a Voortrekker commando moved out against Mzilikazi and was engaged in a battle with his impi to the north of Swartruggens. The area surveyed was inhabited by white settlers as early as 1839 (Bergh 1999: 14-15).

The greater Magaliesberg and Rustenburg area saw much action during the Anglo-Boer War (1899-1902). British troops reached Rustenburg on 14 June 1900. Three battles were fought here during the War, being the one at Buffelspoort on 3 December 1900, the one at Nooitgedacht on 13 December 1900 and the one at Vlakfontein on 29 May 1901 (Bergh 1999: 51-52).

Historical structures, such as farm houses and infrastructure relating to these times, may be found in the surveyed area. It is also possible to that graves, associated with the above, may be present.

9. DISCUSSION OF SITES

A summary of the sites are given in Table 1, following the below discussion. New site numbers were given, but the numbers given by Huffman is included in brackets in order to assist with cross referencing. Six new sites identified are included.

It is indicated that some sites were mitigated in 2003, whereas the Huffman report was only done in 2005. This is due to the fact that the latter was a consolidated report of previous heritage work in the area.

Eastern Railway Line

Two sites (site 1 and 2) are situated near the Eastern Railway line near Siphumelele 2 mine shaft (Figure 1). The Siphumelele 2 mine shaft was formerly known as the Brakspruit shaft.

Figure 1: Google image indicating the sites located near the Eastern Railway Line.

Site 1 (Eastern Railway Line – 2):

Artefact and Period: Iron Age Pottery

GPS: 25º 41' 30.5" S
27º 24' 29.6" E

The site is located approximately 700 metres form the Siphumelele 2 mine shaft and approximately 500 metres west form the railway line (Figure 2). It was deemed as of low significance according to Huffman's Report (2005). The site consists of an open area with low grass making visibility relatively easy. Power lines can be found next to the site along the road (Figure 3). Litter on the surface of the site indicates that the site has been disturbed by human activity. Low frequencies of broken and undecorated Iron Age Pottery were noticed on the surface of the site.

Figure 2: General view of site 1 with the Siphumelele 2 Mine shaft in the background.

Figure 3: Power lines running along the site.

Site 2 (Eastern Railway Line – 3):

Artefact and Period: Iron Age Pottery

GPS: 25º 41' 28.2" S
27º 24' 24.4" E

The site is located approximately 400 metres form the Siphumelele 2 mine shaft and was deemed as of low significance according to Huffman's report (2005). The vegetation of the site consists of low grass (Figure 4). Low frequencies of broken and

undecorated Iron Age Pottery were found on the surface of the site. The railway line can be found approximately 350 metres to the west of the site (Figure 5).

Figure 4: General view of the site.

Figure 5: View of the site with train tracks in the background.

Paardekraal Tailings Storage Facility

Four sites are located in the Paardekraal Tailings Storage Facility (Figure 6). These sites were disturbed when the facility was constructed over these sites and most

likely do not exist any more.. The facility was constructed based on the approved Environmental Management Programme Report.

Figure 6: Google Earth image showing the sites located in the Paardekraal Tailings Storage Facility

The sites are:

Site 3 (Paardekraal Tailings Dam - 7):

Significance: Low

Artefact and period: Late Iron Age Walling

GPS: 25º 38' 23.7" S
27º 19' 55.3" E

Site 4 (Paardekraal Tailings Dam - 13):

Significance: Low

Artefact and period: Iron Age Pottery

GPS: 25º 38' 02" S
27º 18' 15.5" E

Site 5 (Paardekraal Tailings Dam - 14):

Significance: Low

Artefact and period: Iron Age Pottery

GPS: 27º 37' 49.5" S
27º 18' 08.6" E

Site 6 (Paardekraal Tailings Dam - 15):

Significance: Low

Artefact and period: Iron Age Pottery

GPS: 27º 37' 43" S
27º 18' 10.5" E

Tailings Storage Facility

Thirty six sites are located around the Hoedspruit Tailings Storage Facility. Fourteen of these are located within the fence of the Tailings Storage Facility (Figure 7).

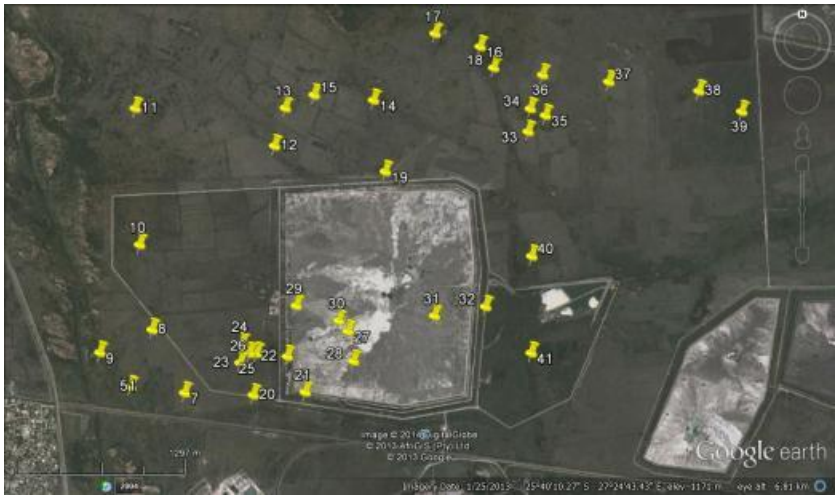


Figure 7: Google Earth image showing the sites located in and around the Tailings Storage facility.

The following sites are located in the Tailings Storage Facility are of low significance. Since the facility was constructed over these sites no Iron Age Pottery was observed, since the sites were destroyed with the construction of the facility.

Site 10 (Tailings Dam - 5): 25º 40' 11.6" S; 27º 23' 24.4" E
Site 21 (Tailings Dam - 17): 25º 40' 48.8" S; 27º 24' 10.6" E
Site 22 (Tailings Dam - 18): 25º 40' 39.8" S; 27º 24' 05.6" E
Site 23 (Tailings Dam - 19): 25º 40' 41.4" S; 27º 23' 52.4" E
Site 24 (Tailings Dam - 20): 25º 40' 36.6" S; 27º 23' 52.9" E
Site 25 (Tailings Dam - 21): 25º 40' 39" S; 27º 23' 55" E
Site 26 (Tailings Dam - 22): 25º 40' 39" S; 27º 23' 57" E
Site 27 (Tailings Dam - 23): 25º 40' 33.5" S; 27º 24' 22.6" E
Site 28 (Tailings Dam - 24): 25º 40' 41" S; 27º 24' 24.1" E

Site 29 (Tailings Dam - 25): 25º 40' 27" S; 27º 24' 08.1" E

Sites 11, 15 and 19 will eventually be covered by the 3rd Phase of the Tailings Facility (see later). These are however od low significance and therefore no action is required.

The following sites are also located in the Tailings Storage Facility and of low significance. The sites are recent according to Huffman's report (2005) and were also destroyed with the construction of the facility.

Site 32 (Tailings Dam - 26): 25º 40' 27.3" S; 27º 25' 01.2" E
Site 41 (Tailings Dam - 38): 25º 40' 39-42" S; 27º 25' 14-16" E

The following sites are located in the Tailings Storage Facility and of moderate significance. The sites were mitigated in 2003 according to Huffman's report (2005). Site 27 consisted of engravings and 31 consisted of Late Iron Age stone walling.

Site 31 (Tailings Dam - 28): 25º 40' 29.6" S; 27º 24' 46.8" E
Site 27 (Tailings Dam - 23): 25º 40' 33.5" S; 27º 24' 22.6" E

The following sites are located around the Tailings Storage Facility:

Site 7 (Tailings Dam - 1):

Artefact and period: Iron Age Pottery

GPS: 25º 40' 48.9" S
27º 23' 37" E

The site is located next to an unpaved road approximately 300 metres south of the Tailings Storage Facility (Figure 8 and 9) and was deemed as of low significance according to Huffman's report (2005). Undecorated Iron Age Pottery was noticed on the surface of the site (Figure 10). The vegetation cover in certain areas of the site is reasonably high making the visibility of archaeological material on the surface difficult. Slabs of concrete were found along the road next to the site (Figure 11) indicating disturbance. Furthermore Power lines run from east to west along the site. However, since the site is of low significance, no action is required.

Figure 8: General view of the site.

Figure 9: The Tailings Storage Facility near the site.

Figure 10: Undecorated shards found at site.

Figure 11: Unpaved road next to site. Concrete slabs indicating disturbance of the area can be seen lying next to the road.

Site 8 (Tailings Dam - 2):

Artefact and period: Iron Age Pottery

GPS: 25º 40' 33" S
27º 23' 27.9" E

The site is located approximately a 100 metres south of the Tailings Storage Facility and was deemed as of low significance according to Huffman's report (2005). The vegetation cover in certain areas of the site is reasonably low making the visibility of artefacts on the surface not as difficult (Figure 12). However low frequencies of potshards were scattered across the surface of the site. Power lines were noticed to the south-west of the site (Figure 13)

Figure 12: General view of the site.

Figure 13: Power lines to the south-west of the site.

Site 9 (Tailings Dam - 4):

Artefact and period: Late Iron Age Walling

GPS: 25º 40' 38.7" S
27º 23' 13.5" E

The site is covered with long grass and a few small thorn bushes (Figure 14). The site is about 300 metres in width with extensive stone walled structures present and was deemed as of moderate significance according to Huffman's report (2005) (Figure 15). The archaeology of the site consists mainly of broken and semi-circular Iron Age stone walls covered by dense vegetation. Some of the stone walls are low and collapsed (Figure 16). Power lines are located to the South-west of the site with a path (used by cattle and humans) running through the northern part of the site (Figure 17).

Figure 14: General view of stone walls covered by grass and thorn bush.

Figure 15: Circular Iron Age walling found on site.

Figure 1: A collapsed and low stone wall.

Figure 2: Power lines close to the site.

Site 11 (Tailings Dam - 6):

Artefact and period: Iron Age Pottery

GPS: 25º 39' 37.2" S
27º 23' 23" E

The site is located approximately 500 metres form the Tailings Storage Facility and was deemed as of low significance according to Huffman's report (2005). The vegetation of the site consists of thorn bushes and medium-high grass (Figure 18 and 19). Low frequencies of broken and undecorated Iron Age Pottery were found on the surface of the site (Figure 20). Hills surround the site on the western side. The site will eventually be covered by the Tailings Dam, but since it is of low significance, no further action is required.

Figure 3: Path going through the site.

Figure 4: General view of site.

Figure 5: Undecorated shard found on site.

Site 12 (Tailings Dam - 7):

Artefact and period: Iron Age Pottery

GPS: 25º 39' 46.6" S
27º 24' 01.9" E

The site is located approximately 300 metres from the Tailings Storage Facility (Figure 21) and was deemed as of low significance according to Huffman's report (2005). The vegetation of the site consists of thorn bushes and medium-high grass (Figure 22). Low frequencies of broken and undecorated Iron Age Pottery were found on the surface of the site (Figure 23). Small hills can be found on the western side of the site.

Figure 21: The Tailings Storage facility near the site.

Figure 22: General view of site.

Figure 23: Undecorated shards found on site.

Site 13 (Tailings Dam - 8):

Artefact and period: Iron Age Pottery

GPS: 25º 39' 37" S;
27º 24' 04.9" E

The site is located approximately 400 metres form the Tailings Storage Facility (Figure 24) and was deemed as of low significance according to Huffman's report (2005). The vegetation of the site consists of thorn bushes and long grass (Figure 25). Low frequencies of broken and undecorated Iron Age Pottery were found on the

surface of the site and can be found within a 100 metre radius from the centre of the site. Small hills can be found on the western side of the site.

Figure 24: The Tailings Storage Facility near the site.

Figure 25: General view of the site.

Site 14 (Tailings Dam - 9):

Artefact and period: Iron Age Pottery

GPS: 25º 39' 35.7" S;
27º 24' 29.7" E

The site is located approximately 500 metres form the Tailings Storage Facility (Figure 26) and was deemed as of low significance according to Huffman's report (2005). The vegetation of the site consists of thorn bushes and low grass making the visibility of archaeological remains challenging. Low frequencies of broken and undecorated Iron Age Pottery were found on the surface of the site (Figure 27). A foot path runs from east to west through the site (Figure 28). The path is used by grazing animals as well as by the local communities.

Figure 26: General view of the site.

Figure 27: Undecorated shards found on site.

Figure 28: Foot path on site.

Site 15 (Tailings Dam - 10):

Artefact and period: Iron Age Pottery

GPS: 25º 39' 33.7" S;
27º 24' 13" E

The site is located approximately 600 metres form the Tailings Storage Facility (Figure 29) and was deemed as of low significance according to Huffman's report (2005). The vegetation of the site consists of thorn bushes and low grass making the visibility of archaeological remains challenging. Low frequencies of broken and undecorated Iron Age Pottery were found on the surface of the site (Figure 30). A foot path runs from east to west through the site (Figure 31). The path is used by grazing animals such as cattle as well as by the local communities.

The site will eventually be covered by the Tailings Dam, but since it is of low significance, no further action is required.

Figure 6: General view of the site.

Figure 30: Undecorated shard found on site.

Figure 31: Foot path through the site.

Site 16 (Tailings Dam - 11):

Artefact and period: Late Iron Age Walling

GPS: 25º 39' 21.3" S;
27º 24' 59.7" E

The Late Iron Age Walling site is located approximately 900 metres form the Tailings Storage Facility and was deemed as of moderate significance according to Huffman's report (2005). Dense grass and thorn bush vegetation made the visibility of archaeological remains difficult, since the stone walls were overgrown (Figure 32). Low stone walls as well as heaps of collapsed walls were found on the surface of the site (Figure 33 and 34).

Figure 32: General view of the site.

Figure 33: Collapsed stone walls found on site.

Figure 34: Low stone walls found on site

Site 17 (Tailings Dam - 12):

Artefact and period: Late Iron Age Walling

GPS: 25º 39' 18-20" S;
27º 24' 47-49" E

The Late Iron Age Walling site is located approximately a kilometre form the Tailings Storage Facility and was deemed as of low significance according to Huffman's report (2005). Dense grass and thorn bush vegetation made the visibility of archaeological remains difficult, since the stone walls were overgrown (Figure 35). Low and collapsed stone walls were found on the site as well as big rock that are incorporated into the stone walls (Figure 36).

Figure 35: General view of the site.

Figure 7: Rocks forming part of the stone walls.

Site 18 (Tailings Dam - 13):

Artefact and period: Late Iron Age Walling

GPS: 25º 39' 26.7" S;
27º 25' 03.5" E

The Late Iron Age Walling site is located approximately 800 metres form the Tailings Storage Facility and was deemed as of low significance according to Huffman's report (2005). Dense grass and thorn bush vegetation made the visibility of the low and collapsed stone walls challenging (Figure 37). Low and collapsed stone walls were found on the site, with some of the walls collapsed on a heap of stones (Figure 38). The site stretches to a radius of approximately 50 metres.

Figure 8: View of the site showing low stone walls.

Figure 38: Collapsed on a heap of stones

Site 19 (Tailings Dam - 15):

Artefact and period: Iron Age Pottery

GPS: 25º 39' 53.1" S;
27º 24' 33" E

This Iron Age site is located right next to the northern fence of the Tailings Storage Facility and was deemed as of low significance according to Huffman's report (2005). The site is also characterised by low grass and thorn bush vegetation (Figure 39). No Iron Age Pottery was found on the surface of the site which is most probably due to the close proximity of the site to the Tailings Storage Facility. The site has been disturbed by human and mining activities since a fence and a road go through the site (Figure 40). The site will eventually be covered by the Tailings Dam, but since it is of low significance, no further action is required.

Figure 9: View of the site next to the Tailings Storage Facilities.

Figure 40: A fence and road found next to the site.

Site 20 (Tailings Dam - 16):

Artefact and period: Iron Age Pottery

GPS: 25º 40' 49.5" S;
27º 23' 56.1" E

This Iron Age site is located 50 metres from the southern fence of the Tailings Storage Facility and was deemed as of low significance according to Huffman's report (2005). The site is also characterised by long grass and thorn bush vegetation making visibility of archaeological remains difficult. The area has been disturbed

since it is next to the Tailings facilities mine heap, a power line, pipe line and a road that runs through the site (Figure 41-43).

Figure 41: View of the site next to the Tailings mine heap and the pipe line.

Figure 42: Power lines next to the site.

Figure 43: Road that goes through the site.

Site 33 (Tailings Dam - 30):

Artefact and period: Iron Age Pottery

GPS: 25º 39' 42.9" S;
27º 25' 13.2" E

This Iron Age site is located in an open grass patch about 600 metres north-east from the Tailings Storage Facility and was deemed as of low significance according to Huffman's report (2005). The vegetation of the site is characterised by medium-high grass and thorn bush making visibility of archaeological remains difficult (Figure 44). Part of the site is set on a rocky surface (Figure 45). A low frequency of Iron Age ceramics were noticed on the surface of the site (Figure 46).

Figure 44: General view of the site.

Figure 45: Rocky surface on site.

Figure 46: Shard found on site.

Site 34 (Tailings Dam - 31):

Artefact and period: Recent

GPS: 25º 39' 37.1" S;
27º 25' 13.8" E

This site is located in an open grass patch about 800 metres north-east from the Tailings Storage Facility and was deemed as of low significance according to Huffman's report (2005). The vegetation of the site is characterised by medium-high grass and thorn bush making visibility of archaeological remains difficult, since the stone walled features are overgrown. The site consists of features that include heaps of stones, possibly from a recent stone structure (Figure 47).

Figure 10: Heap of stones found on site

Site 35 (Tailings Dam - 32):

Artefact and period: Late Iron Age Walling

GPS: 25º 39' 38.8" S;
27º 25' 18.1" E

This site is located approximately a kilometre north-east of the Tailings Storage Facility and was deemed as of low significance according to Huffman's report (2005). The vegetation of the site is characterised by medium-high grass and thorn bush making visibility of archaeological remains difficult, since the stone walled features are collapsed and overgrown (Figure 48). The site consists of Late Iron Age walling that includes heaps of stones, collapsed and low stone walls that cover an area of 100 metres in length (Figure 49).

Figure 11: General view of site.

Figure 12: Low and collapsed stone wall on site.

Site 36 (Tailings Dam - 33):

Artefact and period: Late Iron Age Walling

GPS: 25º 39' 28.5" S;
27º 25' 17.31" E

This site is located approximately a kilometre north-east of the Tailings Storage Facility and was deemed as of low significance according to Huffman's report (2005). The vegetation of the site is characterised by medium-high grass, thorn bush and

rocky patches making visibility of archaeological remains difficult, since the stone walled features are collapsed and overgrown (Figure 50). The site consists of Late Iron Age walling that includes heaps of stones that indicate collapsed stone walls (Figure 51). The site is 100 metres in length.

Figure 50: General view of the site.

Figure 51: Heap of stones of a collapsed stone wall.

Site 37 (Tailings Dam - 34):

Artefact and period: Late Iron Age Walling

GPS: 25º 39' 30.2" S;
27º 25' 36" E

This site is located approximately a kilometre north-east of the Tailings Storage Facility and was deemed as of low significance according to Huffman's report (2005). The vegetation of the site is characterised by medium-high grass and thorn bush (Figure 52). No Late Iron Age walling was noticed on the surface of the site through the survey. It is possible that the site and walling collapsed with time or by the disturbance from grazing animals. Power lines and a mining facility are found to the east of the site (Figure 53).

Figure52: General view of the site.

Figure 53: Power lines and a mining facility near the site.

Site 38 (Tailings Dam - 35):

Artefact and period: Recent

GPS: 25º 39' 32.5" S;
27º 26' 01.5" E

This site is located approximately a kilometre north-east of the Tailings Storage Facility and was deemed as of low significance according to Huffman's report (2005). The vegetation of the site is characterised by grass and thorn bushes (Figure 54). A collapsed rectangular stone structure was found on the surface of the site (Figure 55). The structure was most probably used by a farmer of farm labourers and is 5mx4m in size. It was classified as recent in Huffman's report (2005). The site is 30 metres form an unused crop field (Figure 56).

Figure 54: General view of the site.

Figure 55: Rectangular structure.

Figure 56: Unused crop field next to the site.

Site 39 (Tailings Dam - 36):

Artefact and period: Iron Age Pottery

GPS: 25º 39' 37.7" S;
27º 26' 13.6" E

This site is located approximately a kilometre north-east of the Tailings Storage Facility and was deemed as of low significance according to Huffman's report (2005). The site has been disturbed since it was used as a crop field (Figure 57). The site consists of a dark brown clay type soil deposit with nearly no other vegetation present. Visibility of the site is very good. Due to the disturbed nature of the site no Iron Age Pottery was found on the surface if the site.

Figure 13: General view of the site.

Site 40 (Tailings Dam - 37):

Artefact and period: Late Iron Age Walling

GPS: 25º 40'14.5" S;
27º 25' 14.2" E

This site is located approximately 300 metres from the Tailings Storage Facility's western fence and was deemed as of moderate significance according to Huffman's report (2005). The vegetation of the site consists of long grass and thorn bushes that have grown over the stone walled features (Figure 58). The Late Iron Age walling found on site are broken and collapsed due to weathering form the natural environment (Figure 59 and 60). The site is 100 metre is length from north to south and 150 metres in width form east to west.

Figure 14: General view of the site.

Figure 15: Collapsed stone wall.

Figure 60: Stone wall over grown by grass and trees.

Concentrator

Seven sites were surveyed and documented around and in the Western Limb Retreatment Plant and Concentrator. Of the seven sites found three sites are located wit in the fence of the Western Limb Retreatment Plant and Concentrator (Figure 61).

Figure 61: Google Earth Image of the sites located around the Western Limb Retreatment Plant and Concentrator.

Site 42 (Concentrator - 39):

Artefact and period: Iron Age Pottery

GPS: 25º 40' 55" S;
27º 23' 40" E

This Iron Age site is located approximately 500 metres form the Western Limb Retreatment Plant and Concentrator (Figure 62). The site was deemed as of low significance according to Huffman's report (2005). The vegetation of the site consists of tall grass and thorn bushes; there has also been disturbance of the site by cattle grazing the area (Figure 63). Furthermore it was noted that there is a small mine heap 20 metres east of the site, along with power lines that run from west to east as well as from north to south beside the site (Figure 64). A pipeline was noticed running alongside the northern part of the site next to the train tracks. Undecorated and broken Iron Age pottery was notice on the surface of the site stretching 50 metres in every direction (Figure 65).

Figure 62: Image showing the Western Limb Retreatment Plant and concentrator near the site.

Figure 63: General view of the site with cattle grazing in the background.

Figure 64: The site is next to a mine heap, pipe line and a power line.

Figure 65: Shards found on the surface of the site.

Site 43 (Concentrator - 40):

Artefact and period: Iron Age Pottery

GPS: 25º 41' 07" S;
27º 23' 38" E

This Iron Age site is located approximately 100 metres form the Western Limb Retreatment Plant and Concentrator. The site was deemed as of low significance according to Huffman's report (2005). The vegetation of the site consists of tall grass and thorn bushes. The site is also categorised by a small hill outcrop (Figure 66).

Low frequencies of Iron Age pottery were noticed on the surface of the site and around the rocky outcrop (Figure 67).

Figure 66: General view of the site.

Figure 16: Undecorated Iron Age shards found on the surface of the site.

Site 47 (Concentrator - 44):

Artefact and period: Iron Age Pottery

GPS: 25º 41' 05" S;
27º 23' 50" E

This Iron Age site is located approximately 100 metres form the Western Limb Retreatment Plant and Concentrator. The site was deemed as of low significance according to Huffman's report (2005). The vegetation of the site consists of tall grass and thorn bushes. The site is also categorised by a small mine heap to the west of the site (Figure 68). Low frequencies of Iron Age pottery were noticed scattered on the surface, stretching for 150 metres around the site (Figure 69).

Figure 17: General view of the site, next to the small mine heap.

Figure 189: Undecorated shard found on site.

Site 48 (Concentrator - 45):

Artefact and period: Iron Age Pottery

GPS: 25º 40' 58" S;
27º 23' 48" E

This Iron Age site is located approximately 300 metres form the Western Limb Retreatment Plant and Concentrator on a small mound. The site was deemed as of low significance according to Huffman's report (2005). The vegetation of the site consists of tall grass and thorn bushes. It is evident that the archaeological site has been disturbed by cattle grazing over the site (Figure 70). Furthermore the mound provides evidence for possible past mining activities. Low frequencies of undecorated Iron Age pottery were scattered on the surface of the mound, stretching for 50 metres around the site (Figure 71).

Figure 70: View of the site with the Western Limb Retreatment Plant and Concentrator in the background.

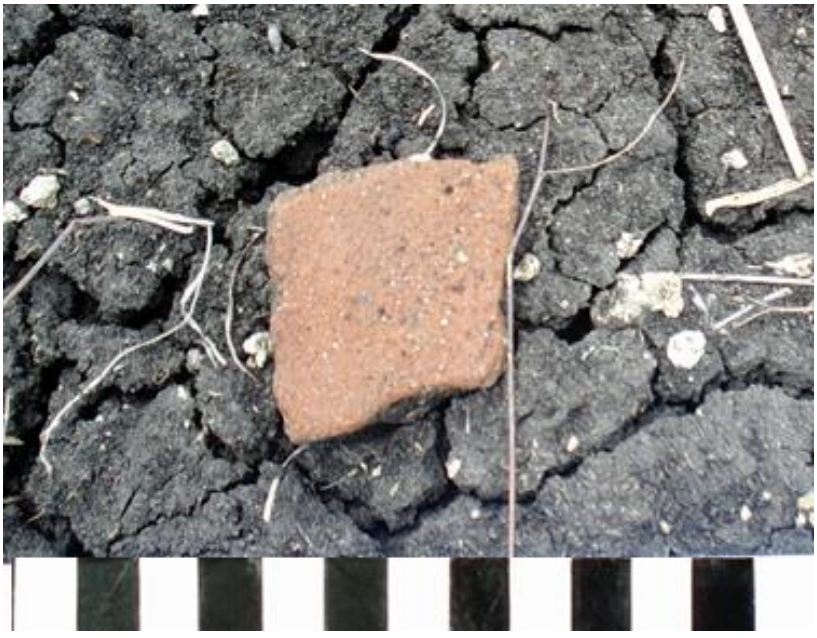


Figure 71: Undecorated shard found on site.

The following sites are located in the Concentrator and are of low significance. Since the facility was constructed over these sites no Iron Age Pottery could be observed.

Site 44 (Concentrator – 41): 25º 41' 13" S; 27º 23' 40" E
Site 45 (Concentrator – 42): 25º 41' 20" S; 27º 23' 49" E
Site 46 (Concentrator – 43): 25º 41' 17" S; 27º 23' 53" E

Power line

Three sites were survey and documented to the south-west of the Tailings Storage facility (Figure 72).

Figure 72: Google Earth image showing the sites south-west of the Tailings Storage Facility.

Site 49 (Power line - 47):

Artefact and period: Late Iron Age Walling

GPS: 25º 40' 43" S;
27º 23' 04" E

This Iron Age site is located approximately a kilometre form the western fence of the Tailings Storage Facility. The site was deemed as of moderate significance according to Huffman's report (2005) and mitigated in 2003. The vegetation of the site consists of tall grass and thorn bushes (Figure 73). Collapsed and broken stone walls were noticed on the surface of the site (Figure 74). A hole was noticed next to one of the stone walls (Figure 75). It is uncertain if the hole is a natural occurrence due to erosion of made by human activities.

Figure 73: General view of the site.

Figure74: Collapsed stone wall found on site.

Figure 75: Hole next to one of the stone walls.

Site 50 (Power line - 48):

Artefact and period: Late Iron Age Walling

GPS: 25º 40' 23"-30" S;
27º 23' 06"-10" E

This Iron Age site is located approximately 500 metres form the western fence of the Tailings Storage Facility. The site was deemed as of moderate significance according to Huffman's report (2005). The Late Iron Age site is situated on top of a small hill (Figure 76). The archaeology of the site consists of Late Iron Age walling that are over grown and collapsed, while a few walls are semi-circular still moderately intact (Figure 77-79).

Figure 76: General view of the site on the hill.

Figure 77: Stone walls covered by vegetation.

Figure 19: Another semi-circular stone wall structure.

Figure 20: Intact stone wall found on site.

Site 51 (Power line - 51):

Artefact and period: Late Iron Age Walling

GPS: 25 40 47.3 S;
27 23 22 E

The site was deemed as of moderate significance according to Huffman's report (2005) and mitigated in 2003. The vegetation of the site consists of tall grass and thorn bushes (Figure 80). The site is extensive and within a 150 metre radius multiple semi-circular stone walled structures were noticed (Figure 81). This Iron Age site is located approximately 500 metres form the western fence of the Tailings Storage Facility and situated next to a dirt road and power lines. Some of the stone walls are connected, while other walls were broken and collapsed in heaps of stone (Figure 82-85). A possible monolith was noticed sticking out of one of the stone walls (Figure 86). Along with a daga floor (Figure 87) found at the site, pieces of an undecorated pottery were found buried in one of the stone walls (Figure 88).

Figure 80: General view of the site.

Figure 81: Multiple stone walled structures on the site.

Figure 82: Low stone walls found on site. In the background power lines can be seen that run along a dirt road.

Figure 83: Collapsed stone wall and heaps of stone.

Figure 84: Another semi-circular stone wall found on the site.

Figure 85: More Late Iron age walling found on site.

Figure 86: Stone wall with a monolith sticking out.

Figure 21: Daga floor found on site, near the stone walls.

Figure 22: Undecorated shards found in one of the stone walls.

Pipeline

Site 52 (Pipeline - 49):

Artefact and period: Iron Age Pottery

GPS: 25º 39' 19" S;
27º 20' 20" E

The Iron Age site is situated near the Mfidikwe Township and the Khomonani 1 mining facility (Figure 89). The site was deemed as of low significance according to Huffman's report (2005). The vegetation of the site consists of low grass and thorn trees making visibility relatively clear (Figure 90). It is evident that the site has been disturbed by human and animal activity due to its proximity to the Mfidikwe Township and the Khomonani 1 mining facility and as such a low frequency of undecorated Iron Age pottery was noticed (Figure 91-92). Furthermore it was observed that a power line runs through the northern part of the site (Figure 93).

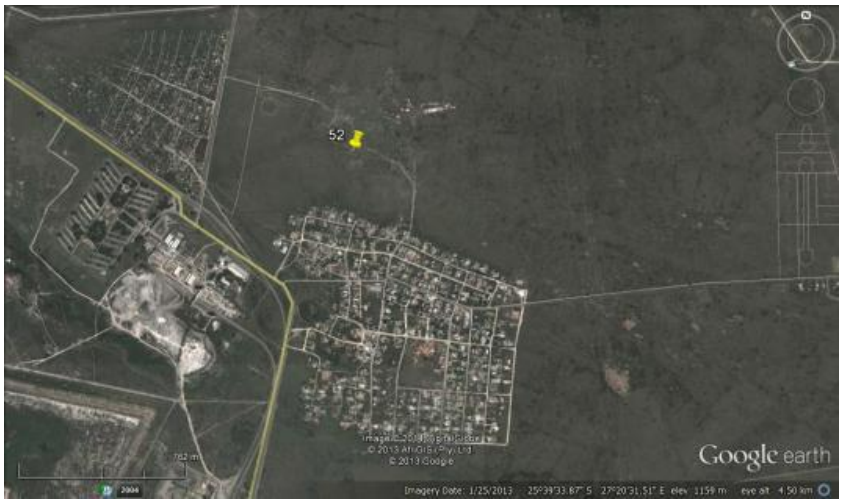


Figure 23: Google Earth image showing site 52.

Figure 90: General view of the site, with the Khomonani 1 mine facility in the background.

Figure 91: The Mfidikwe Township next to the site.

Figure 92: Undecorated Iron Age shard found on site.

Figure 93: Power line found on the northern part of the site.

Power line corridor

Six sites were surveyed and documented at the Power line corridor (Figure 94).

Figure 94: Google Earth image showing the sites.

Site 53 (Power line corridor - 7):

Artefact and period: Late Iron Age Walling

GPS: 25º 37' 40.7" S;
27º 22' 13" E

The Iron Age site is situated on the boundary of Turfontein and Klipgat. The site was deemed as of moderate significance according to Huffman's report (2005) and mitigation of the site was suggested. It was suggested that the stone walled site needs to be mapped and that depending on the position of the pylons, parts of the site might need to be excavated (Huffman 2005:16). The vegetation of the site consists of tall grass and thorn bushes that cover parts of the stone walls (Figure 95). An extensive stone walled site was documented with semi-circular and circular stone walls (Figure 96-97). Collapsed and broken stone walls were also noticed on the surface of the site (Figure 98). It was also noticed that parts of the stone walls were broken away to make way for a road, through the site. Power lines run through the site (99-101). A sign stating that the area is a heritage site and that it is restricted was observed near the site (Figure 102).

Figure 95: Stone wall covered by vegetation.

Figure 96: Iron Age walling found on the site.

Figure 24: Circular stone wall found on site.

Figure 25: Collapsed stone wall.

Figure 26: Road and Power line going through site.

Figure 100: Stone wall broken to make way for the road.

Figure 101: Power lines at the back of a stone walled structure.

Figure 102: A sign stating that the area is a heritage site and that it is restricted.

Site 54 (Power line corridor - 9):

Artefact and period: Type N Walling

GPS: 25º 37' 32.3" S;
27º 22' 32.3" E

The Iron Age stone wall site is situated on a foot of a small hill and was deemed as of moderate significance according to Huffman's report (2005). The site was classified as having N-type walling, which is characterised by circular kraals in the

middle of the site that is linked to the other parts of the settlement through secondary walls, while the whole site is surrounded by an outer wall (Huffman 2007:33). The vegetation consists of long grass and thorn bushes that make visibility of the stone walls challenging (Figure 103). The stone walls found at the site were semi-circular and circular while part of the walls were low, collapsed and broken which was most probably caused by the natural vegetation (Figure 104-106). The site is a 100 meters wide from west to east. A small dirt road and power lines run along the site (Figure 107).

Figure 103: General view of the site.

Figure 104: Low semi-circular stone wall found on site.

Figure 105: Another semi-circular stone wall.

Figure 106: Collapsed stone wall.

Figure 27: Small dirt road and power lines close to the site.

Site 55 (Power line corridor - 11):

Artefact and period: Olifantspoort

GPS: 25 37 42 S;
27 23 00.5 E

This Iron Age site is located on a foot of a hill and was deemed as of moderate significance according to Huffman's report (2005). The vegetation of the site is characterised by medium-high grass and thorn bush making visibility of archaeological remains difficult (Figure 108). Decorated and undecorated Iron Age ceramics were noticed on the surface of the site (Figure 109). The decorated shards are of the Olifantspoort facies which is characterised by hatching (Figure 110-111). Remains of two daga floor patches were also documented on the site (Figure 112-113).

Figure 28: General view of the site.

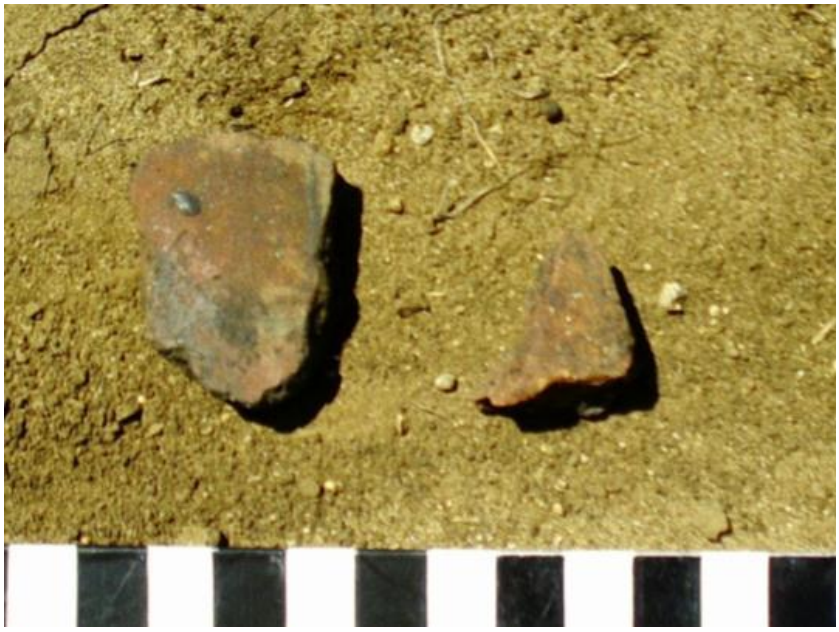


Figure 29: Undecorated shards found on site.

Figure 30: Olifantspoort pottery found on site.

Figure 31: Decorated shard of the Olifantspoort facies.

Figure 32: Remains of a daga floor.

Figure 33: Remains of another daga floor.

Site 56 (Power line corridor - 13):

Artefact and period: Olifantspoort

GPS: 25º 37' 19"-22" S;
27º 20' 58"-00" E

This Iron Age site is located on a foot of a hill and was deemed as of low significance according to Huffman's report (2005). The vegetation of the site is characterised by medium-high grass and thorn bush making visibility of archaeological remains

difficult (Figure 114). It is evident from the vegetation and soil that the site has been disturbed by animal and human activities, as can be seen by the unpaved road that cuts through the site (Figure 115). Undecorated and decorated Iron Age ceramics were noticed on the surface of the site (Figure 116-117).

Figure 34: General view of the site.

Figure 35: Unpaved road going through the site.

Figure 36: Undecorated shards found on the surface of the site.

Figure 37: Olifantspoort pottery found on site.

Site 57 (Power line corridor - 14):

Artefact and period: Historic Grain bins

GPS: 25º 37' 22.2" S;
27º 21' 11.4" E

This site is located in an open area with low grass and thorn bushes (Figure 118). The site was deemed as of low significance according to Huffman's report (2005). Along with undecorated Iron Age shards that were scattered on the surface of the

site (Figure 119), two (possible) collapsed historic grain bins were noticed (Figure 120-121). The site is 100 metres in length for west to east. A power line was noticed to the north-west of the site (Figure 122).

Figure 38: General view of site.

Figure 39: Undecorated shards found on the site.

Figure 40: Possible remains of a collapsed grain bin.

Figure 41: Remains of a possible historic grain bin

Figure 42: Power line close to the site.

Site 58 (Power line corridor - 16):

Artefact and period: Olifantspoort

GPS: 25º 37' 42.5" S;
27º 21' 46.9" E

This site is located near a small hill. The vegetation of the site consists of high grass and thorn bushes that make the visibility of archaeological objects difficult (Figure 123). The site was deemed as of low significance according to Huffman's report (2005). Low frequencies of undecorated and decorated Olifantspoort Iron Age shards were found on the surface of the site (Figure 124). The site appears to have been disturbed by animals.

Figure 43: General view of the site.

Figure 44: Olifantspoort pottery.

Khomanani Mine

Six sites were surveyed around the Khomonani mine (Figure 125).

Figure 45: Google Earth Image showing the sites around the Khomonani mine

Site 59 (Frank No 3 - 17):

Artefact and period: Iron Age Pottery

GPS: 25 37 47-49 S;
27 20 50-53 E

This site is located approximately 2 kilometres from the Khomonani 2 mining facility (Figure 126). The vegetation of the site consists of low grass and thorn bushes. The site was deemed as of low significance according to Huffman's report (2005). Low frequencies of undecorated Iron Age shards were found on the surface of the site. The site appears to have been disturbed by animals.

Figure 46: General view of site with the Khomonani mining facility in the background.

Site 60 (Frank No 3 - 20):

Artefact and period: Olifantspoort

GPS: 25º 37' 49.4" S;
27º 20' 35.6" E

This site is located approximately 2 kilometres from the Khomonani 2 mining facility. The vegetation of the site consists of low grass and thorn bushes that appear to have been disturbed by animals (Figure 127). The site was deemed as of low significance according to Huffman's report (2005). A power line runs directly through the site (Figure 128). Due to the disturbed nature of the site, no Olifantspoort type ceramics were noticed. However low frequencies of undecorated Iron Age shards were found on the surface of the site (Figure 129).

Figure 47: General view of the site.

Figure 48: View of the power lines and the Khomonani Mining facility next to the site.

Figure 49: Undecorated shards found on site.

Site 61 (Frank No 3 - 23):

Artefact and period: Olifantspoort

GPS: 25º 37' 32.6" S;
27º 20' 29.7" E

This site is located approximately 2 kilometres from the Khomonani 2 mining facility. The site was deemed as of low significance according to Huffman's report (2005). The site is situated in an open path with the vegetation consisting of low grass and thorn bushes that appear to have been disturbed by animals and mining activities (Figure 130). Pieces of concrete markers were left on the site (Figure 131). Due to

the disturbed nature of the site low frequencies of undecorated Iron Age shards were found on the surface of the site.

Figure 500: General view of the site.

Figure 51: Pieces of a concrete marker left on site.

Site 62 (Frank No 3 - 24):

Artefact and period: Late Iron Age Walling

GPS: 25º 37' 29.6" S;
27º 20' 30.7" E

The Late Iron Age site is located approximately 2 kilometres from the Khomonani 2 mining facility on the foot of a small hill (Figure 132). The site was deemed as of moderate significance according to Huffman's report (2005). The site is situated in an open patch with the vegetation consisting of low grass and thorn bushes that appear to have been disturbed by animals (Figure 133). Visibility of the site is fairly good. The circular and semi-circular stone walls on the site are low and collapsed (Figure134). The site is 200 metres wide and 100 metres in length.

Figure 52: General view of the site.

Figure 53: Low circular stone wall.

Figure 54: Collapsed stone wall.

Site 63 (Frank No 3 - 25):

Artefact and period: Olifantspoort

GPS: 25º 37' 27.7" S;
27º 20' 26.4" E

The Iron Age site is located approximately 1,5 kilometres from the Khomonani 2 mining facility on the foot of a small hill (Figure 135). Power lines can be found running along on the western part of the site (Figure 136). The site was deemed as of low significance according to Huffman's report (2005). The site is situated near a small rocky hill and the vegetation consisting of low grass and thorn bushes that appear to have been disturbed by animals. Visibility of the Iron Age ceramics on the surface of the site is challenging due to the semi-dense vegetation. Undecorated and decorated shards from the Olifantspoort facies were noticed on the surface of the site (Figure 137-139). The site is 150 metres in length and 200 metres in width.

Figure 55: General view of the site.

Figure 56: Power lines close to site.

Figure 57: Undecorated shards found on site.

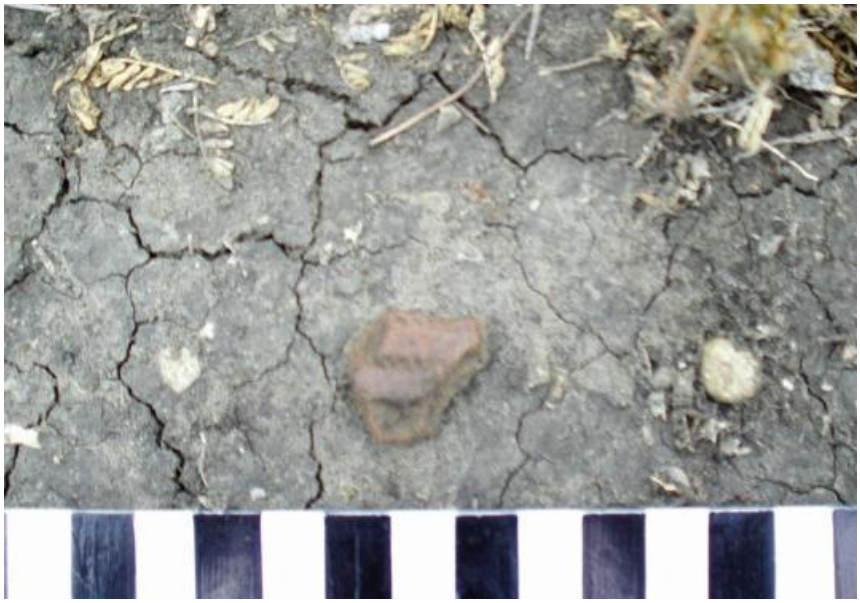


Figure 58: Olifantspoort pottery.

Figure 59: Olifantspoort pottery.

Site 64 (Frank No 3 - 27):

Artefact and period: Historic Tswana

GPS: 25º 37' 45"-53" S;
27º 20' 26"-29" E

The Historic Tswana site is located approximately 1 kilometre from the Khomonani 2 mining facility. Power lines can be found running along on the western part of the site (Figure 140). The site was deemed as of low significance according to Huffman's report (2005). The vegetation consists of low grass and thorn bushes that appear to have been disturbed by animals. Visibility of the historic ceramics on the surface of the site is fairly good. Undecorated shards were noticed on the surface of the site (Figure 141). No decorated ceramics were found during the survey.

Figure 60: General vlew of the site with power lines running along the site.

Figure 611: Undecorated shreds found on site.

Bathopele Mine

Sites 65 and 66 were surveyed near the Bathopele mine (Figure 142). Two new sites were also recorded. They are a grave yard site as well as a stone wall site.

Figure 62: Google Earth image of Site 65 and site 66.

Site 65 (Waterval - 32):

Artefact and period: Early Stone Age

GPS: 25º 41' 37" S;
27º 18' 33" E

The Early Stone Age site is situated 50 metres for the Bathopele Mine. The vegetation consists of low grass and thorn bushes that appear to have been disturbed by animals (Figure 143). The site on a small dolerite slope (Figure 144 and 145) and was used as a quarry site by Early Stone Age people and was deemed as of low significance according to Huffman's report (2005:13). Stone Age artefacts such as cores and flakes were found on the slope of the on the surface of the site (Figure 146-147). Around the site a few Iron Age ceramics were also found scattered on the surface of the site.

Figure 63: Bathopele mine near the site.

Figure 64: General view of the site.

Figure 65: View of the dolerite slope.

Figure 66: Stone tool found on the slope.

Figure 67: Core found on the slope.

Site 66 (Waterval - 33):

Artefact and period: Grave yard and farm labourers

GPS: 25º 41' 37.5" S;
27º 18' 31" E

The grave yard site is located approximately 100 metres form the Bathopele mine. The vegetation consists of low grass that cover most of the grave making visibility of

graves that are not marked difficult (Figure 148). The grave yard was deemed as of moderate significance according to Huffman's report (2005:13). Approximately twenty graves could be seen on the site (Figure 149-162). Most of the graves are covered in stones, while a few are covered in cement. There was no fence around the grave yard as indicated by Huffman's report (2005:13).

Huffman (2005:13) also states that more recent house foundations of farm labourers are located at the site and that the house foundations are of little significance. During the survey no such house remains were found. However a shovel was found at the grave yard indication that the grave site is still visited by the community (Figure 163).

Figure 68: General view of the grave yard.

Figure 69: Grave 1.

Figure 70: Grave 2.

Figure 71: Grave 3.

Figure 722: Grave 4.

Figure 73: Grave 5

Figure 74: Grave 6.

Figure 75: Grave 7.

Figure 76: Grave 8.

Figure 77: Grave 9.

Figure 78: Grave 10.

Figure 79: Grave 11.

Figure 80: Grave 12.

Figure 81: Grave 13.

Figure 82: Grave 14.

Figure 833: Shovel found at the grave yard.

Siphumelele Mine

There are twelve sites around the Siphumelele Mine (Figure 164).

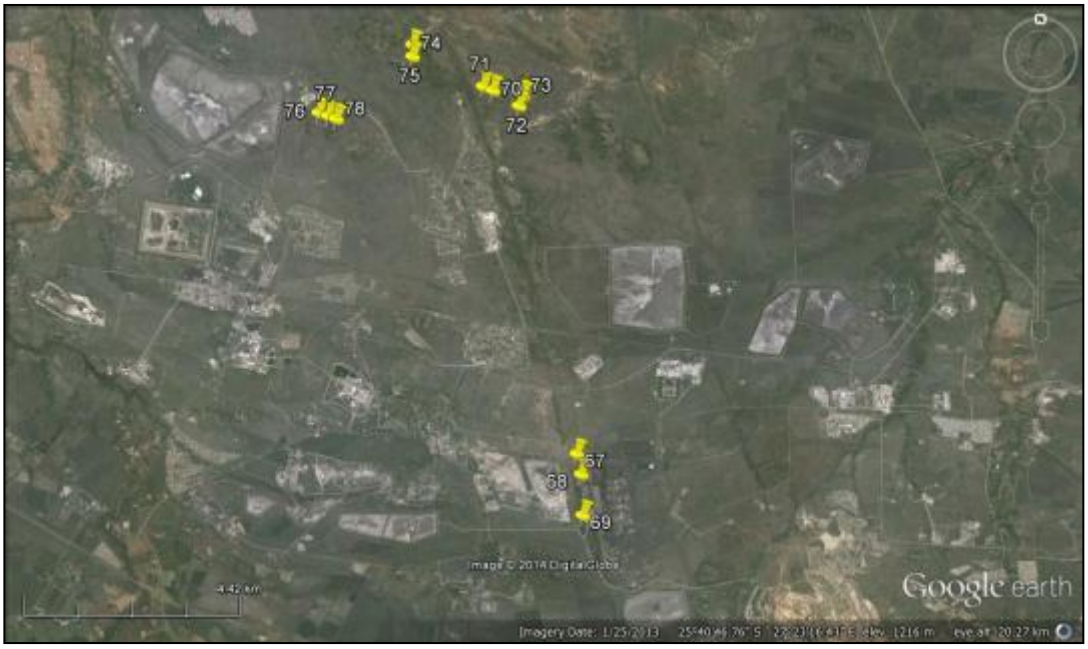


Figure 84: Sites around the Siphumelele Mine.

Site 67 (Kroondal - 1):

Artefact and period: Historic Walling

GPS: 25º 42' 20.5" S;
27º 23' 37.8" E

This site is located approximately 200 metres from the Siphumelele mining facility (Figure 165). The vegetation of the site consists of low grass with thorn bushes and trees mainly found near the stone walled features (Figure 166). The site was deemed as of moderate significance according to Huffman's report (2005). The stone walls found on site are low and collapsed; this might be due to weathering and disturbance form animals as well as from the mining activities (Figure 167-168). Mine vents are located around the site (Figure 169).

Figure 85: Siphumelele Mine close to the site.

Figure 86: General view of the site.

Figure 87: Collapsed wall near a small hill.

Figure 88: Another collapsed wall.

Figure 89: Mine vent near the site.

Site 68 (Kroondal - 2):

Artefact and period: Late Iron Age Walling

GPS: 25º 42' 34"-54" S;
27º 23' 41"-45" E

This site is located approximately 150 metres from the Siphumelele mining facility. The site was deemed as of moderate significance according to Huffman's report (2005). The vegetation of the site consists of low grass with thorn bushes and trees mainly found near the stone walled features (Figure 170). Vegetation cover over the stone walled features are dense making visibility challenging. The stone walls found on site are low and collapsed (Figure 171-173); this might be due to weathering and disturbance form animals as well as from the mining activities. Mine vents and a mine heap are located around the site (Figure 174-175).

Figure 90: General view of the site.

Figure 91: Stone wall found on site.

Figure 92: Collapsed stone wall.

Figure 93: Collapsed and overgrown stone wall.

Figure 94: Mine vent in front of site.

Figure 95: Mine heap to the west of the site.

Site 69 (Kroondal - 3):

Artefact and period: Late Iron Age Walling

GPS: 25º 43' 01" S;
27º 23' 42.2"E

This site is located approximately 50 metres from the Siphumelele mining facility. The site was deemed as of moderate significance according to Huffman's report (2005). The vegetation of the site consists of low grass with thorn bushes and trees mainly found near the stone walled features (Figure 176). The stone walls found on site are low and collapsed (Figure 177-178). The weathering might be due to the disturbance caused by the laying of a water pipe through the site.

Figure 96: View of the site with pipe line in the middle of the site.

Figure 97: Collapsed stone wall.

Figure 98: Another collapsed stone wall on site.

Site 70 (Turfontein - 2):

Artefact and period: Olifantspoort

GPS: 25º 38' 20.6" S;
27º 22' 36.2" E

This Iron Age site is situated between small hills and is characterised by medium-high grass and thorn bush making visibility of archaeological remains challenging (Figure 179). The site was deemed as of moderate significance according to Huffman's report (2005). Iron Age ceramics were noticed on the surface of the site (Figure 180). The decorated shards are of the Olifantspoort facies which is characterised by hatching (Figure 181). Low frequencies of undecorated shards were also noticed on the site. The site has been disturbed by animals.

Figure 99: General view of the site.

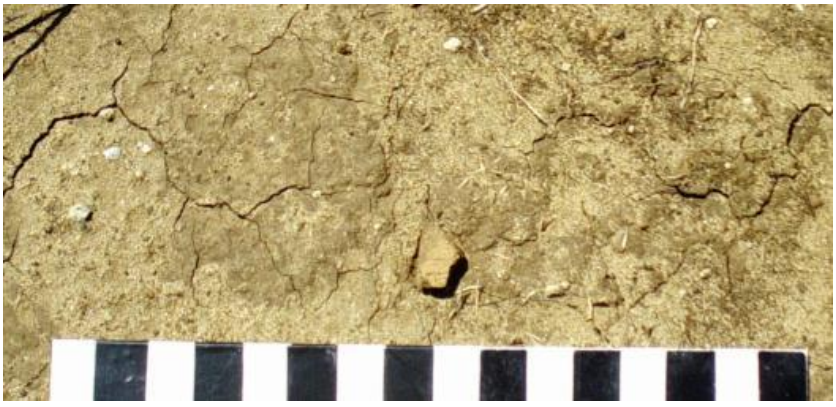


Figure 100: Olifantspoort pottery.

Figure 101: Olifantspoort pottery.

Site 71 (Turfontein - 3):

Artefact and period: Late Iron Age Walling

GPS: 25º 38' 18" S;
27º 22' 29" E

This Iron Age site is situated between small hills and is characterised by medium-high grass and thorn bush making visibility of archaeological remains challenging (Figure 182). The site was deemed as of moderate significance according to Huffman's report (2005). It was suggested that this site be mitigated (Huffman 2003:16). The stone wall site needs to be mapped by archaeologists and a representative sample of the archaeological remains found on site needs to be collected (Huffman 2005:16). It was furthermore stated that stone walls that are undisturbed should be fenced to prevent them from accidentally collapsing (Huffman 2005:16). Multiple collapsed and broken stone walls were noticed on the site (Figure 183-184).

Figure 102: View of stone walls on site that is overgrown by grass and thorn bushes.

Figure 103: Broken stone wall.

Figure 104: Another stone wall found on site.

Site 72 (Turfontein - 4):

Artefact and period: Olifantspoort TRF 61

GPS: 25º 38' 30.8" S;
27º 22' 55.3" E

This Iron Age site is situated on a small plateau and is characterised by medium-high grass and thorn bush making visibility of archaeological remains challenging (Figure 185). The site was deemed as of moderate significance according to Huffman's

report (2005) and it was suggested that the site be mitigated. Low frequencies of undecorated shards were also noticed on the site (Figure 186). The site has been disturbed by animals as well as by local community, since an informal house is found on the site (Figure 187). Furthermore one of the stone walls found on the site has been destroyed by an unpaved road that goes through it (Figure 188).

Figure 105: General view of part of the site.

Figure 106: Undecorated shards found on site.

Figure 107: Informal house on site.

Figure 108: Broken stone wall and an unpaved road going through the feature.

Site 73 (Turfontein - 6):

Artefact and period: Late Iron Age Walling

GPS: 25º 38' 24" S;
27º 22' 58" E

This Iron Age site is characterised by medium-high grass and thorn bush making visibility of archaeological remains challenging since the stone wall features on the site are overgrown (Figure 189). The site was deemed as of low significance

according to Huffman's report (2005). Multiple collapsed and broken stone walls were noticed on the site (Figure 190-192).

Figure 109: Low stone wall.

Figure 110: Another collapsed stone wall.

Figure 111: Stone wall feature on site.

Figure 112: Stone wall that is overgrown with vegetation.

Site 74 (Turfontein North - 34):

Artefact and period: Historic Cluster

GPS: 25º 37' 50"-54" S;
27º 21' 37" E

This site is located between small hill outcrops and is characterised by medium-high grass and thorn bush making visibility of archaeological remains challenging since the stone wall features on the site are overgrown (Figure 193). The site was deemed as of low significance according to Huffman's report (2005). A low and broken stone wall was noticed on the site which according to Huffman (2005:15) is a back courtyard wall (Figure 194). The stone wall site is 100 metres in width from east to west.

Figure 113: General view of the site.

Figure 114: Stone wall found on site.

Site 75 (Turfontein North - 35):

Artefact and period: Historic Terracing

GPS: 25º 37' 50"-54" S;
27º 21' 37" E

This site is located on a small slope 200 metres from Site 74. The site is characterised by medium-high grass and thorn bush making visibility of archaeological material difficult (Figure 195). The site was deemed as of low significance according to Huffman's report (2005). Low stone wall terraces were noticed on the site (Figure 196-197).

Figure 115: General view of low terraces on the slope.

Figure 116: Low Terrace walls.

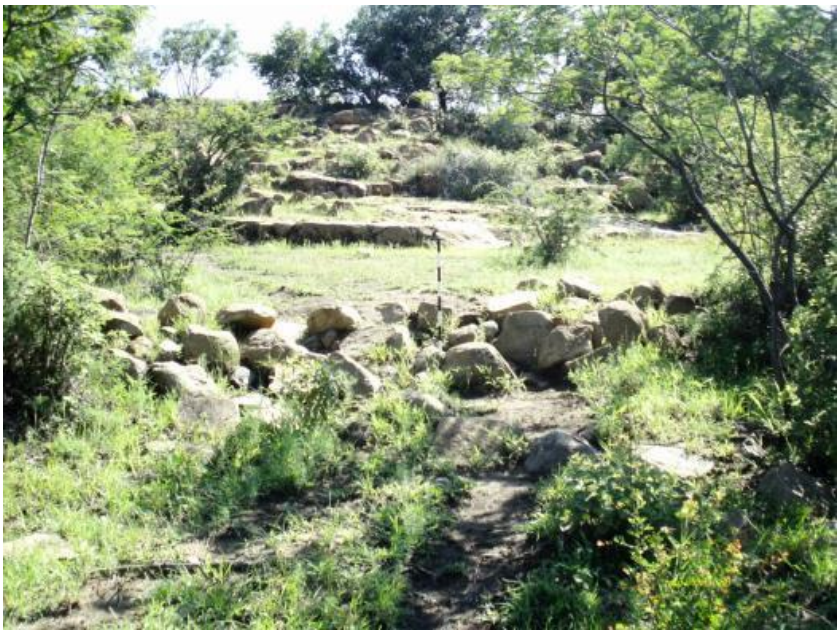


Figure 117: Lower Terrace walls.

Site 76 (Turfontein North - 37):

Artefact and period: Late Iron Age Walling

GPS: 25 38 35 S;
27 20 28 E

This site is located on a small hill 400 metres from the Khomonani 2 Mine Shaft (Figure 198). The site is characterised by medium-high grass and thorn bush making visibility of archaeological features difficult (Figure 199). The site was deemed as of moderate significance according to Huffman's report (2005). Low and collapsed stone walls as well as multiple heaps of stone were noticed on the site (Figure 200-202). Weathering of the site is most probably due to natural causes. There was no evidence of *Uitkomst* pottery (Huffman 2005:13) found on the site.

Figure 118: view of the Khomanani 2 Mine shaft from the site.

Figure 119: General view of the site.

Figure 120: Low stone walls on site.

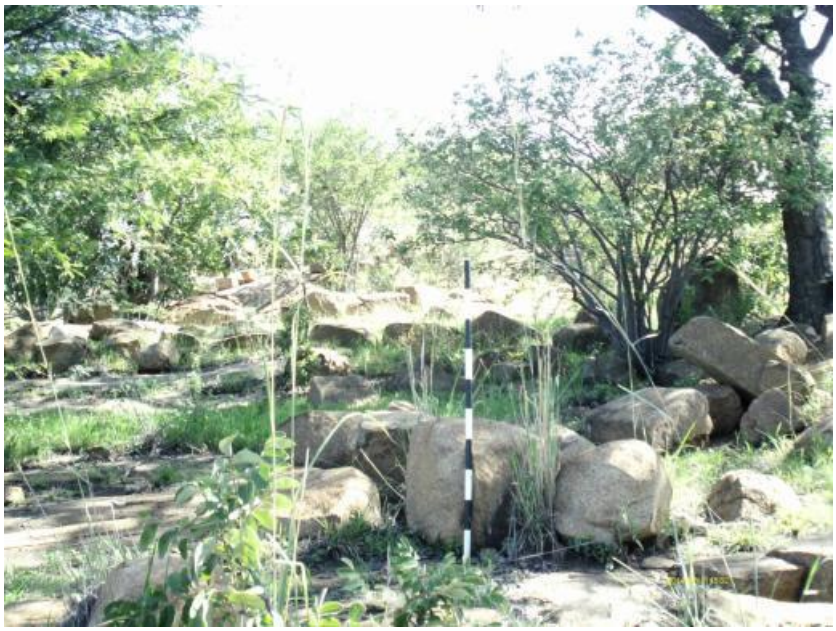


Figure 121: Another stone wall.

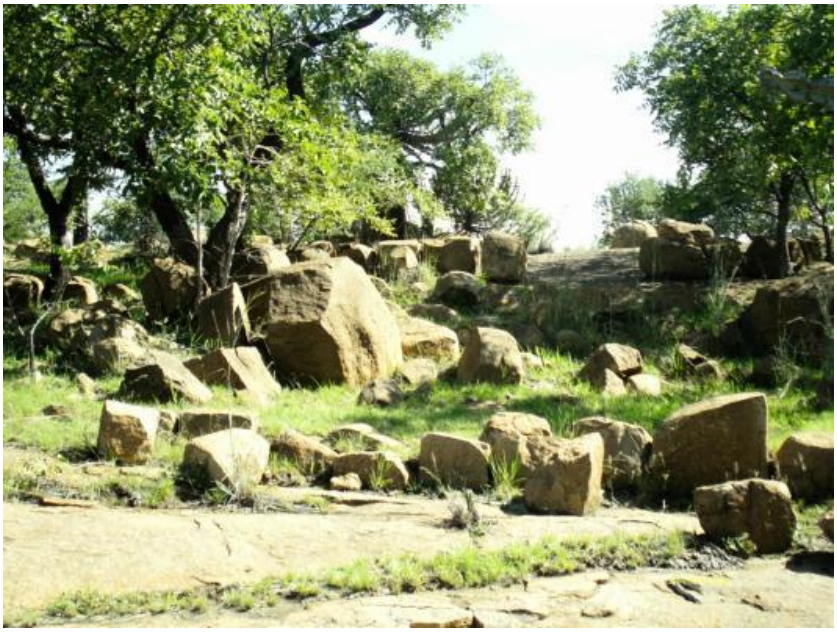


Figure 122: Heaps of stones.

Site 77 (Turfontein North - 38):

Artefact and period: Iron Age Pottery

GPS: 25º 38' 37" S;
27º 20' 35" E

This Iron Age site is located between two small hills and is approximately 600 metres from the Khomanani 2 Mine Shaft. The site is characterised by low grass and thorn bush (Figure 203). The site was deemed as of moderate significance according to Huffman's report (2005). Low and collapsed stone walls as well as multiple heaps of stone were noticed on the site (Figure 204-206). There was no evidence of *Uitkomst* pottery which is associated with this site (Huffman 2005:13).

Figure 123: Stone wall feature on site.

Figure 124: Collapsed Stone wall on site.

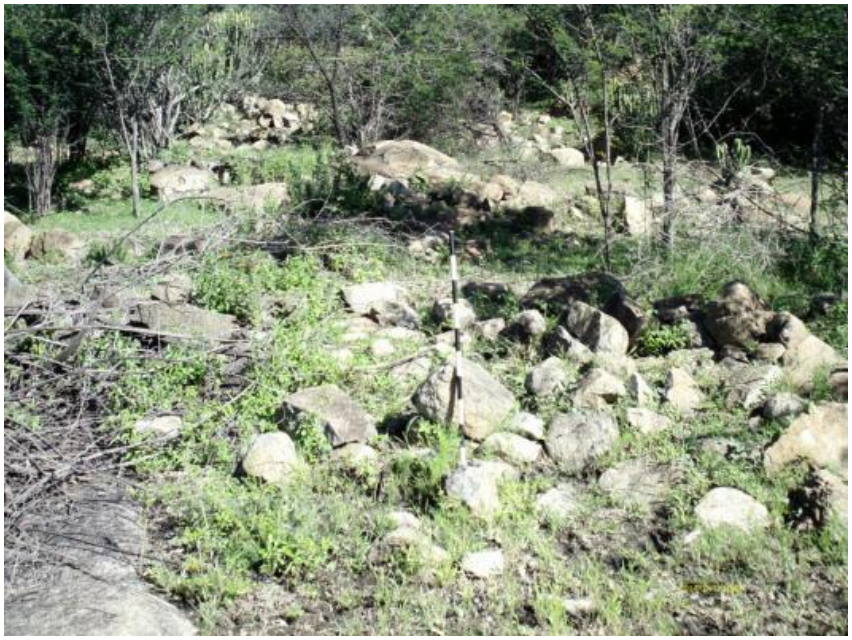


Figure 125: Heap of stones.

Figure 126: Open patch with a low and collapsed stone wall.

Site 78 (Turfontein North - 39):

Artefact and period: Late Iron Age Walling

GPS: 25 38 39 S;
27 20 41 E

This Iron Age site is located on a hill and is approximately a kilometre from the Khomanani 2 Mine Shaft. The site is characterised by dense grass and tree cover and thorn bush making the visibility of the stone wall challenging (Figure 207). The site was deemed as of moderate significance according to Huffman's report (2005). Extensive walling was noticed with parts of the walls being broken and low (Figure 208-212). The weathering is most probably due to weathering caused by the dense vegetation the covers the site. According to Huffman (2005:14) the stone walled complex found on site was part of a BaFokeng community.

Figure 127: General view of the site, covered in vegetation.

Figure 128: Overgrown stone wall.

Figure 129: Another overgrown stone wall.

Figure 130: Collapsed stone wall.

Figure 131: Another collapsed stone wall.

Figure 132: Intact stone wall found on site.

New Site 1*:

Artefact and period: Grave yard

GPS: 25º 41' 38.5" S;
27º 41' 42.8" E

The grave yard site is located approximately 300 metres form Site 66 near the Bathopele mine. The vegetation consists of low grass that cover most of the site making visibility of graves that is not marked difficult (Figure 213). Twelve clearly visible graves could be counted, yet it is probable that there are more (Figure 214-225). Most of the graves are covered in stones, while a few are covered in cement. Approximately 5 metres from the grave site, under a thorn bush undecorated Iron Age shards were noticed on the surface (Figure 126). Some of the shreds were also buried in the ground (Figure 127).

Figure 133: General view of the site.

Figure 134: Grave 1.

Figure 135: Grave 2.

Figure 136: Grave 3.

Figure 137: Grave 4.

Figure 138: Grave 5.

Figure 139: Grave 6

Figure 140: Grave 7 with a tomb stone.

Figure 141: Grave 8.

Figure 142: Grave 9.

Figure 143: Grave 10.

Figure 144: Grave 11.

Figure 145: Grave 12.

Figure 146: Cluster of undecorated shards on the surface of the site.

Figure 147: Buried undecorated shards.

New Site 2*:

Artefact and period: Stone walled site

GPS: 25º 41' 38.5" S;
27º 41' 42.8" E

Thirty metres to the west of New Site 1* there is a low stone walled kraal. The site is 400 metres form Site 66 near the Bathopele mine. The vegetation consists of long grass that covers the stone walls (Figure 228).

Figure 148: Circular stone wall.

New Site 3*:

GPS: 25º 37' 58.7" S;
27º 21' 30.4" E

This site is located approximately a 250 metres from Site 75. The site is characterised by grass and tree cover and thorn bush making the visibility of the stone wall challenging (Figure 229). The site contains extensive semi-circular stone walling, were parts of the walls are broken and low (Figure 230-232). The weathering is most probably caused by the dense vegetation the covers the site. Undecorated Iron Age pottery was also noticed on the surface of the site (Figure 233).

Figure 149: Overgrown semi-circular stone wall.

Figure 150: Walling found on site.

Figure 151: A semi-circular stone wall that is still fairly undisturbed.

Figure 152: Collapsed stone wall.

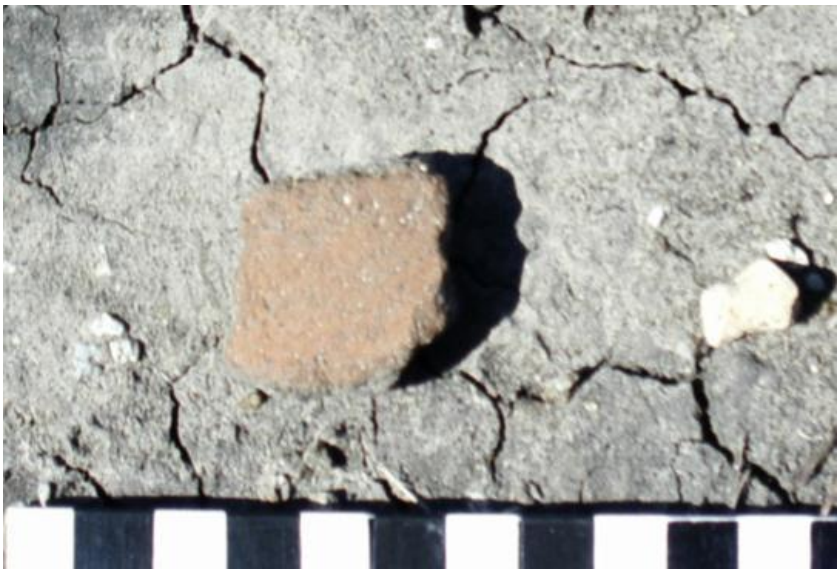


Figure 233: Undecorated potshard from the site

New Site 4*:

Artefact and period: Grave yard

GPS: 25º 40' 54.1" S;
27º 25' 10.6" E

The fenced grave yard site is located within the fence of the Tailings Storage Facility. The vegetation consists of low grass that cover most of the grave making visibility of graves that are not marked difficult (Figure 234). Approximately 10 graves were counted. Most of the graves are covered in stones, while a few seem to have tombstones.

Figure 1534: Grave yard site located within the fence of the Tailings Storage Facility.

Table 1 Summary of sites and findings

Nr	Location	Artefact and Period	Significance	Huffman Site no's:	Remarks
Eastern Railway Line					
1	25 41 30.5; 27 24 29.6	Iron Age Pottery	Low	Eastern Railway Line – 2	
2	25 41 28.2; 27 24 24.4	Iron Age Pottery	Low	Eastern Railway Line – 3	
Paardekraal Tailings Storage Facility					
3	25 38 23.7; 27 19 55.3	Late Iron Age Walling	Low	Paardekraal Tailings Dam – 7	Demolished in mining area
4	25 38 02; 27 18 15.5	Iron Age Pottery	Low	Paardekraal Tailings Dam – 13	Demolished in mining area
5	27 37 49.5; 27 18 08.6	Iron Age Pottery	Low	Paardekraal Tailings Dam – 14	Demolished in mining area

6	25 37 43; 27 18 10.5	Iron Age Pottery	Low	Paardekraal Tailings Dam – 15	Demolished in mining area
Tailings storage Facility					
7	25 40 48.9; 27 23 37	Iron Age Pottery	Low	Tailings Dam 1	
8	25 40 33; 27 23 27.9	Iron Age Pottery	Low	Tailings Dam 2	
9	25 40 38.7; 27 23 13.5	Late Iron Age Walling	Moderate	Tailings Dam 4	
10	25 40 11.6; 27 23 24.4	Iron Age Pottery	Low	Tailings Dam 5	Demolished in mining area
11	25 39 37.2; 27 23 23	Iron Age Pottery	Low	Tailings Dam 6	
12	25 39 46.6; 27 24 01.9	Iron Age Pottery	Low	Tailings Dam 7	
13	25 39 37; 27 24 04.9	Iron Age Pottery	Low	Tailings Dam 8	
14	25 39 35.7; 27 24 29.7	Iron Age Pottery	Low	Tailings Dam 9	
15	25 39 33.7; 27 24 13	Iron Age Pottery	Low	Tailings Dam 10	
16	25 39 21.3; 27 24 59.7	Late Iron Age Walling	Moderate	Tailings Dam 11	
17	25 39 18-20; 27 24 47-49	Late Iron Age Walling	Low	Tailings Dam 12	
18	25 39 26.7; 27 25 03.5	Late Iron Age Walling	Low	Tailings Dam 13	
19	25 39 53.1; 27 24 33	Iron Age Pottery	Low	Tailings Dam 15	
20	25 40 49.5; 27 23 56.1	Iron Age Pottery	Low	Tailings Dam 16	
21	25 40 48.8; 27 24 10.6	Iron Age Pottery	Low	Tailings Dam 17	Demolished in mining area
22	25 40 39.8; 27 24 05.6	Iron Age Pottery	Low	Tailings Dam 18	Demolished in mining area
23	25 40 41.4; 27 23 52.4	Iron Age Pottery	Low	Tailings Dam 19	Demolished in mining area

24	25 40 36.6; 27 23 52.9	Iron Age Pottery	Low	Tailings Dam 20	Demolished in mining area
25	25 40 39; 27 23 55	Iron Age Pottery	Low	Tailings Dam 21	Demolished in mining area
26	25 40 39; 27 23 57	Iron Age Pottery	Low	Tailings Dam 22	Demolished in mining area
27[2]	25 40 33.5; 27 24 22.6	Iron Age Pottery	Low	Tailings Dam 23	Mitigated in 2003
27[3]	25 40 33.5; 27 24 22.6	Engravings	Moderate	Tailings Dam 23	Demolished in mining area
28	25 40 41; 27 24 24.1	Iron Age Pottery	Low	Tailings Dam 24	Demolished in mining area
29	25 40 27; 27 24 08.1	Iron Age Pottery	Low	Tailings Dam 25	Demolished in mining area
30	25 40 30.8; 27 24 20	Iron Age Pottery	Low	Tailings Dam 26	Demolished in mining area
31	25 40 29.6; 27 24 46.8	Late Iron Age Walling	Moderate	Tailings Dam 28	Mitigated in 2003
32	25 40 27.3; 27 25 01.2	Recent	Low	Tailings Dam 29	Demolished in mining area
33	25 39 42.9; 27 25 13.2	Iron Age Pottery	Low	Tailings Dam 30	
34	25 39 37.1; 27 25 13.8	Recent	Low	Tailings Dam 31	
35	25 39 38.8; 27 25 18.1	Late Iron Age Walling	Low	Tailings Dam 32	

[2] This is one site with two different components and therefore are discussed separately by Huffman and accordingly also in this report.
[3] This is one site with two different components and therefore are discussed separately by Huffman and accordingly also in this report.

36	25 39 28.5; 27 25 17.3	Late Iron Age Walling	Low	Tailings Dam 33	
37	25 39 30.2; 27 25 36	Late Iron Age Walling	Low	Tailings Dam 34	
38	25 39 32.5; 27 26 01.5	Recent	Low	Tailings Dam 35	
39	25 39 37.7; 27 26 13.6	Iron Age Pottery	Low	Tailings Dam 36	
40	25 40 14.5; 27 25 14.2	Late Iron Age Walling	Moderate	Tailings Dam 37	
41	25 40 39-42; 27 25 14-6	Recent	Low	Tailings Dam 38	Demolished in mining area
Concentrator					
42	25 40 55; 27 23 40	Iron Age Pottery	Low	Concentrator 39	
43	25 41 07; 27 23 38	Iron Age Pottery	Low	Concentrator 40	
44	25 41 13; 27 23 40	Iron Age Pottery	Low	Concentrator 41	Demolished in mining area
45	25 41 20; 27 23 49	Iron Age Pottery	Low	Concentrator 42	Demolished in mining area
46	25 41 17; 27 23 53	Iron Age Pottery	Low	Concentrator 43	Demolished in mining area
47	25 41 05; 27 23 50	Iron Age Pottery	Low	Concentrator 44	
48	25 40 58; 27 23 48	Iron Age Pottery	Low	Concentrator 45	
Power line					
49	25 40 43; 27 23 04	Late Iron Age Walling	Moderate	Power line – 47	Mitigated in 2003
50	25 40 23-30; 27 23 06-10	Late Iron Age Walling	Moderate	Power line – 48	
51	25 40 47.3; 27 23 22	Late Iron Age Walling	Moderate	Power line – 51	Mitigated in 2003

Pipeline					
52	25 39 19;27 20 20	Iron Age Pottery	Low	Pipeline – 49	
Power line corridor					
53	25 37 40.7; 27 22 13	Late Iron Age Walling	Moderate	Power line corridor - 7	Mitigation needed
54	25 37 32.3; 27 22 32.3	Type N Walling	Moderate	Power line corridor - 9	
55	25 37 42; 27 23 00.5	Olifantspoort	Moderate	Power line corridor- 11	
56	25 37 19-22; 27 20 58-00	Olifantspoort	Low	Power line corridor- 13	
57	25 37 22.2; 27 21 11.4	Historic Grain Bins	Low	Power line corridor- 14	
58	25 37 42.5; 27 21 46.9	Olifantspoort	Low	Power line corridor- 16	
Khomanani Mine					
59	25 37 47-49; 27 20 50-53	Iron Age Pottery	Low	Frank No3 – 17	
60	25 37 49.4; 27 20 35.6	Olifantspoort	Low	Frank No3 – 20	
61	25 37 32.6; 27 20 29.7	Olifantspoort	Low	Frank No3 – 23	
62	25 37 29.6; 27 20 30.7	Late Iron Age Walling	Moderate	Frank No3 – 24	
63	25 37 27.7; 27 20 26.4	Olifantspoort	Low	Frank No3 – 25	
64	25 37 45-53; 27 20 26-29	Historic Tswana	Low	Frank No3 – 27	
Bathopele Mine					
65	25 41 37; 27 18 33	Early Stone Age	Low	Waterval/Waterkloof – 32	Mitigation needed if site is threatened
66[4]	25 41 37.5; 27 18 31	Farm Labourers	Low	Waterval/Waterkloof – 33	

[4] This is one site with two different components and therefore are discussed separately by Huffman and accordingly also in this report.

66[5]	25 41 37.5; 27 18 31	Graveyard	Moderate	Waterval/Waterkloof – 33	Preserve and compile management plan
Siphumelele Mine					
67	25 42 20.5; 27 23 37.8	Historic Walling	Moderate	Kroondal – 1	
68	25 42 34-54; 27 23 41-45	Late Iron Age Walling	Moderate	Kroondal – 2	
69	25 43 01; 27 23 42.2	Late Iron Age Walling	Moderate	Kroondal – 3	
70	25 38 20.6; 27 22 36.2	Olifantspoort	Moderate	Turffontein No2 -2	
71	25 38 18; 27 22 29	Late Iron Age Walling	Moderate	Turffontein No2 – 3	Mitigation needed
72	25 38 30.8; 27 22 55.3	Olifantspoort-TRF 61	Moderate	Turffontein No2 – 4	Mitigation needed
73	25 38 24; 27 22 58	Late Iron Age Walling	Low	Turffontein No2 – 6	
74	25 37 50-54; 27 21 37	Historic Cluster	Low	Turffontein North - 34	
75	25 37 57.7; 27 21 37	Historic Terracing	Low	Turffontein North - 35	
76	25 38 35; 27 20 28	Late Iron Age Walling	Moderate	Turffontein West - 37	
77	25 38 37; 27 20 35	Iron Age Pottery	Moderate	Turffontein West - 38	
78	25 38 39; 27 20 41	Late Iron Age Walling	Moderate	Turffontein West - 39	
	New Sites: Bathopele Mine				
1*	25 41 38.5; 27 41 42.8	Graves	High		Should be mitigated
2*	25 41 38.5; 27 41 42.8	Recent stone walling	Low		

[5] This is one site with two different components and therefore are discussed separately by Huffman and accordingly also in this report.

	Turffontein North Mine				
3*	25 37 58.7; 27 21 30.4	Late Iron Age walling	Moderate		
4*	25 40 54.1; 27 25 10.6	Grave yard	High		Should be mitigated

10. CONCLUSION AND RECOMMENDATIONS

The sites applicable to this study are indicated on Map 4. The following is recommended:

- The following sites are of a low heritage significance and needs no further mitigation: 1-8, 10-15, 17-26, 27 (pottery), 28-30, 32-39, 41-48, 52, 56-61, 63-64, 66 (labourers houses) and 73-75.

- One site is of low heritage significance and was mitigated, being site no. 27 (Iron Age pottery).

- The following sites are of moderate heritage significance and needs no further mitigation: 9, 16, 27 (engravings), 40, 50, 54-55, 62, 67-70 and 76-78.

- The following sites are of moderate heritage significance and were mitigated: 31, 49 and 51.

- The following sites are of moderate heritage significance and needs to be mitigated: 53, 65, 66 (graves), 71 and 72. Huffman indicated that these should be mitigated, but no information that it was done could be found.

- In the case of the Early Stone Age site (no. 65) this would entail the collection of a representative sample of archaeological material by an archaeologist.

- In the case of the Iron Age sites (no. 53, 71 and 72) it would entail mapping and doing test excavations.

- In the case of site no 66 (grave yard) it would entail the fencing in of the site, writing a management plan and preserving it.

- All other sites indicated by Huffman as needing mitigation, has been done as such.

- Four new sites have been identified.

- One of these (site no. 2) is of low heritage significance and no further action is needed.

- One of these (site no. 3) is of moderate heritage significance, but no further action is needed.

- The other two (no. 1 and 4) are of a high heritage significance and should be mitigated. In this case it would entail the fencing in of the site, writing a management plan and preserving it.

- It should be noted that the subterranean presence of archaeological and/or historical sites, features or artefacts is always a possibility. Care should be taken when development commences that if any of the mentioned are discovered, a qualified archaeologist be called in to investigate the occurrence.

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APPENDIX A

EXPLAINING DIFFERENT ARCHAEOLOGICAL LOCALITIES:

Site: A large place with extensive structures and related cultural objects. It can also be a large assemblage of cultural artefacts, 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: Artefact (cultural object).

(Also see Knudson 1978: 20).

APPENDIX B

HERITAGE ASSESSMENT CRITERIA:

Historic value:	Important in the community or pattern of history or has an association with the life or work of a person, group or organization of importance in history.
Aesthetic value:	Important in exhibiting particular aesthetic characteristics valued by a community or cultural group.
Scientific value:	Potential to yield information that will contribute to an understanding of natural or cultural history or is important in demonstrating a high degree of creative or technical achievement of a particular period
Social value:	Have a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.
Rarity:	Does it possess uncommon, rare or endangered aspects of natural or cultural heritage.
Representivity:	Important in demonstrating the principal characteristics of a particular class of natural or cultural places or object or a range of landscapes or environments characteristic of its class or of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, province region or locality.

APPENDIX C
SIGNIFICANCE AND FIELD RATING:

Cultural significance:

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

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

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

Heritage significance:

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

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

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

Field ratings:

i. National Grade I significance — should be managed as part of the national estate
ii. Provincial Grade II significance — should be managed as part of the provincial estate
iii. Local Grade IIIA — should be included in the heritage register and not be mitigated (high significance)
iv. Local Grade IIIB — should be included in the heritage register and may be mitigated (high/medium significance)
v. General protection A (IV A) — site should be mitigated before destruction (high/medium significance)
vi. General protection B (IV B) — site should be recorded before destruction (medium significance)
vii. General protection C (IV C) — phase 1 is seen as sufficient recording and it may be demolished (low significance)

APPENDIX D
PROTECTION OF HERITAGE RESOURCES:

Formal protection:

National heritage sites and Provincial heritage sites – grade I and II
Protected areas - an area surrounding a heritage site
Provisional protection – for a maximum period of two years
Heritage registers – listing grades II and III
Heritage areas – areas with more than one heritage site included
Heritage objects – e.g. archaeological, palaeontological, meteorites, geological specimens, visual art, military, numismatic, books, etc.

General protection:

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

APPENDIX E
HERITAGE IMPACT ASSESSMENT PHASES

1. Pre-assessment or scoping phase – establishment of the scope of the project and terms of reference.
2. Baseline assessment – establishment of a broad framework of the potential heritage of an area.
3. Phase I impact assessment – identifying sites, assess their significance, make comments on the impact of the development and makes recommendations for mitigation or conservation.
4. Letter of recommendation for exemption – if there is no likelihood that any sites will be impacted.
5. Phase II mitigation or rescue – planning for the protection of significant sites or sampling through excavation or collection (after receiving a permit) of sites that may be lost.
6. Phase III management plan – for rare cases where sites are so important that development cannot be allowed.