

**PROPOSED PROSPECTING AND MINING RIGHTS ON THE FARM
JAKHALSFONTEIN (PORTION 1 OF THE FARM SCHIMDTSDRIFT
248) NEAR SCHMIDTSDRIFT, NORTHERN CAPE**

**HERITAGE MANAGEMENT PLAN
(UPDATED)**

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ABBREVIATIONS

CPA	Community Property Association
EIA	Environmental Impact Assessment
HIA	Heritage Impact Assessment
LSA	Late Stone Age
LIA	Later Iron Age
PHRA	Provincial Heritage Resources Authority
MSA	Middle Stone Age
NHRA	National Heritage Resources Act
SAHRA	South African Heritage Resources Agency

GLOSSARY

Archaeological material: remains older than 100 years, resulting from human activities left as evidence of their presence, which are in the form of structure, artefacts, food remains and other traces such as rock paintings or engravings, burials, fireplaces etc.

Artefact: Any movable object that has been used modified or manufactured by humans.

Catalogue: An inventory or register of artefacts and / or sites.

Conservation: All the processes of looking after a site or place including maintenance, preservation, restoration, reconstruction and adaptation.

Cultural Heritage Resources: refers to physical cultural properties such as archaeological sites, palaeontological sites, historic and prehistoric places, buildings, structures and material remains, cultural sites such as places of rituals, burial sites or graves and their associated materials, geological or natural features of cultural importance or scientific significance. These include intangible resources such as religious practices, ritual ceremonies, oral histories, memories, indigenous knowledge.

Cultural landscape: a stretch of land that reflects “the combined works of nature and man” and demonstrates “the evolution of human society and settlement over time, under the influence of the physical constraints and / or opportunities presented by their natural environment and of successive social, economic and cultural forces, both internal and external”.¹

Cultural Resources Management (CRM): the conservation of cultural heritage resources, management and sustainable utilization for present and future generations.

Cultural Significance: is the aesthetic, historical, scientific and social value for past, present and future generations.

¹ This definition is taken from current terminology as listed on the World Heritage Convention website, URL: <http://whc.unesco.org/en/culturallandscape/#1> accessed 17 March 2016.

Early Iron Age: refers to cultural remains dating to the first millennium AD associated with the introduction of metallurgy and agriculture.

Early Stone Age: a long and broad period of stone tool cultures with chronology ranging from around 3 million years ago up to the transition to the Middle Stone Age around 250 000 years ago.

Excavation: a method in which archaeological materials are extracted from the ground, which involves systematic recovery of archaeological remains and their context by removing soil and any other material covering them.

Historic material: means remains resulting from human activities, which are younger than 100 years and no longer in use; that include artefacts, human remains and artificial features and structures.

Historical: means belonging to the past, but often specifically the more recent past, and often used to refer to the period beginning with the appearance of written texts.

Intangible heritage: something of cultural value that is not primarily expressed in material form e.g. rituals, knowledge systems, oral traditions or memories, transmitted between people and within communities.

In situ material: means material culture and surrounding deposits in their original location and context, for instance archaeological remains that have not been disturbed.

Later Iron Age: The period from the beginning of the 2nd millennium AD marked by the emergence of complex state society and long-distance trade contacts.

Late Stone Age: The period from ± 30 000 years ago up until the introduction of metals and farming technology around 2000 years ago, but overlapping with the Iron Age in many areas up until the historical period.

Middle Stone Age: a period of stone tool cultures with complex chronologies marked by a shift towards lighter, more mobile toolkit, following the Early Stone Age and preceding the Late Stone Age; the transition from the Early Stone Age was a long process rather than a specific event, and the Middle Stone Age is considered to have begun around 250 000 years ago, seeing the emergence of anatomically modern humans from about 150 000 years ago, and lasting until around 30 000 years ago.

Monuments: architectural works, buildings, sites, sculpture, elements, structures, inscriptions or cave dwellings of an archaeological nature, which are outstanding from the point of view of history, art and science.

Place: means site, area, building or other work, group of buildings or other works, together with pertinent contents, surroundings and historical and archaeological deposits.

Preservation: means the protecting and maintaining of the fabric of a place in its existing state and retarding deterioration or change, and may include stabilization where necessary.

Rock Art: various patterned practices of placing markings on rock surfaces, ranging in Southern Africa from engravings to finger paintings to brush-painted imagery.

Sherds: ceramic fragments.

Significance grading: Grading of sites or artefacts according to their historical, cultural or scientific value.

Site: a spatial cluster of artefacts, structures, organic and environmental remains, as residues of past human activity.

Site Recording Template: a standard document format for site recording.

EXECUTIVE SUMMARY

1. This document is a Heritage Management Plan (HMP) for the conservation of a selection of heritage sites on the farm Jakhalsfontein which have been identified for protection in terms of Sections 34, 35, 38 and 47 of the National Heritage Resources Act (25/1999). In heritage management planning sustainable approaches are applied when a balance has to be found between the imperatives of economic development and the responsibility to protect heritage resources. This HMP establishes a point of reference against which to measure success or failure of a protection programme for heritage resources. As such therefore the HMP contributes significantly in lowering the risk of uncertainty inherently present in *ad hoc* decision making and reactive interventions.

2. The following typologies of heritage have been identified on the Farm Jakhalsfontein (Portion 1 of the Farm Schmidtsdrift 248):
 - (i) Possible burial grounds
 - (ii) Stonewalled structures associated with military training and ordnance testing.
 - (iii) Historical buildings and occupation debris associated with early commercial farming.

3. *Statement of Significance of the heritage resources*

The purpose of the HMP is to put in place measures to retain the value of a heritage resource. A statement of cultural significance of the heritage has been prepared to justify the allocation of resources (time, money, and personnel) for conservation and management. Cultural value or significance underpins the relationship between the heritage, local communities and the broader public.

A number of sites on Jakhalsfontein Farm have been selected for a sustainable conservation programme as they represent a particular aspect of South African history. The South African Defence Forces escalated training activities from the 1970s through the 1980s in line with a national defence policy dubbed “Total Strategy” to stave off mounting insurgency by liberation movements operating in Namibia, while by the time there were occasional infiltrations into South Africa from Mozambique and other frontline states. Located in the heart of the Karoo,

the farm provided ideal secluded ground for training and ordnance tests. On the farm there are also sites connected with early commercial farming. While the history of colonial occupation and the introduction of commercial farming is fairly well documented, a lot more information can be derived from the archaeological study of remains of old abandoned pioneer farmsteads and other associated settlements. Such investigations fall within the discipline of historical archaeology, which can shed further light on the sterling efforts of pioneer Boer farmers to tame the semi-hospitable Karoo environs, contributing the initial impetus for economic development in the country.

4. The following are Strategic Objectives of the Heritage Management Plan:

SO 1: To raise awareness and appreciation of the heritage sites and strengthen capacity to protect the heritage resources on the farm.

SO 2: To provide the developer with the capacity to monitor and assess the economic, social and environmental impacts of mining activities on heritage resources on the farm in the present and future.

SO 3: To encourage collaboration among stakeholders to conserve the heritage resources.

5. The Strategic Objectives for the HMP and concomitant Action Programmes must be incorporated into the Environmental Management Plan (EMP).

6. A simple Monitoring, Evaluation, Learning and Intervention (MELI) tool should be established for the HMP.

1. INTRODUCTION

This Heritage Management Plan (HMP) has been prepared in support of a mine prospecting right application on the farm Jakhalsfontein (Portion 1 of the Farm Schmidtsdrift 248 near Schmidtsdrift Village in the Pixley Ka Seme District Municipality, Northern Cape Province. The scale of the project and the attendant physical works require precautions to be taken as heritage resources may be directly or indirectly affected by anticipated increased human activity.

1.1. What is an integrated Heritage Management Plan?

Heritage Management Plans are necessary for the protection and sustainable management of heritage resources. This is to establish a point of reference against which to measure success or failure of protection programmes. Management Plans therefore contribute significantly in lowering the risk of uncertainty inherently present in ad hoc decision making and reactive interventions.

Generically, a Heritage Management Plan (also referred to as a Conservation Management Plan) is prepared with the following aims:

- (i) Develop and implement a sound management system based on the respect of best international practices in the conservation of cultural heritage sites,
- (ii) Set out priorities for sustainable conservation and development of heritage resources,
- (iii) Encourage research to shed more light on the history of the resources as well as well as the best means of preserving them,
- (iv) Create local and national awareness, and building an understanding of the conservation planning process among stakeholders,
- (v) Encourage partnership initiatives and collaboration with key stakeholders such as local communities, government departments and research institutions and
- (vi) Develop educational, cultural and visitation programmes that will create an appreciation among the public for the value of the heritage resources, thereby reinforcing protection measures.

1.2. Heritage and conservation

This HMP takes a conservation approach. Conservation is a broad concept which encompasses all the process of looking after a place (such as the graves and burial grounds) so as to retain its cultural significance. With respect to the sites on Jakhalsfontein Farm conservation would imply maintenance, preservation, restoration, reconstruction, repair and adaptation, presentation and interpretation. Ceremonies, public programmes, financing and many other activities associated with the management of heritage sites are part of conservation.²

2. APPROACH TO HMP PLANNING AND METHODOLOGY

2.1. Structure of the Heritage Management Plan

The structure of this Heritage Management Plan is adapted from the South African Heritage Resources Agency (SAHRA) *Guidelines for Conservation Management Plans for Heritage Sites* (Updated 2014).

2.2. Situational analysis

The success of a heritage management planning process is predicated on a clear understanding of the nature/type of heritage resources to be managed and their locations. A Phase 1 Heritage Impact Assessment was undertaken in 2019 and it forms the foundation for understanding the heritage sensitivity of the property and isolation of sites worthy of protection:

(i) Possible Burial grounds

Piles of stones or cairns have been recorded in 3 instances (JKF04, JKF05 and JKF08 suggesting possible graves. Without a more detailed examination it was difficult to ascertain whether these cairns date back to a much earlier period or could be associated with the occupation of the South African Defence Forces (SADF) in the 1970s through to the 1980s. Taking a precautionary approach, these sites must be fenced off and protected. Further investigations are recommended if the localities will be mined.

² The Illustrated Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance (2004). Articles 1.4 – 1.9, Article 14.

(ii) Sites associated with South Africa Defence Forces training from 1968 to 1990

Evidence abounds on the property of SADF's ordnance testing and training manoeuvres. Of particular significance is an east-west trending dolomite ridge used as a natural background for target shooting and launching rifle grenades (JKF16); a number of curved (horseshoe) walls located near a pass through the ridge and on its summit appear to be defence walls forming two parallel rows. It is recommended that the ridge and surrounds are protected as a landscape providing a rare insight into military training activities of the time. Possibly collaborating with the Department of Defence and War Veterans, a commemorative plaque may be erected.

3. STATEMENT OF CULTURAL SIGNIFICANCE (OR VALUE) OF THE HERITAGE

The purpose of the heritage management plan is to put in place measures to retain the value of a heritage resource. A statement of cultural significance of the heritage is prepared to justify the allocation of resources (time, money, and personnel) for their conservation and management. Cultural value or significance underpins the relationship between the heritage, local communities and the broader public.

The above sites have been selected for a sustainable conservation programme as they represent a particular aspect of South African history. The South African Defence Forces escalated training activities from the 1970s through the 1980s in line with a defence policy dubbed "Total Strategy" to stave off mounting insurgency by liberation movements operating in Namibia, while by the time there were occasional infiltrations into South Africa from Mozambique and other frontline states.

Jakhalsfontein Farm located in the heart of the Karoo provided ideal secluded ground for training and ordnance tests. Located in the heart of the Karoo the farm provided ideal secluded ground for training and ordnance tests. There are sites connected with early commercial farming. While the history colonial occupation and the introduction of commercial farming is fairly well documented, a lot more information can be derived from the archaeological study of remains of old abandoned pioneer farmsteads and other associated settlements. Such investigations fall within the discipline of historical archaeology, which can shed further light on the sterling efforts of pioneer Boer farmers to tame the semi-hospitable Karoo environs and contribute the initial impetus for economic development of the country.

4. LOCATION AND ENVIRONMENTAL SETTING

The property is located on the north-western outskirts of Schmidtsdrift 6km west of the Vaal River. Schmidtsdrift is a small village located 70km west of Kimberley and c. 40km downstream of the confluence of the Vaal and Harts River (28°43'35.43"S, 24° 3'6.00") (Figure 1). The Vaal River (known in seSotho as 'Lekwa') is a key geomorphological feature. This perennial river meanders across the semi-arid southern plains from its sources on the western foot of the Drakensberg Mountains, only 240km from the Indian Ocean. It flows west some 1 120km to its confluence with the Orange River, which continues another 1 350km to the Atlantic Ocean. The river has been a strategic lifeline for communities living in these semi-arid parts of the highveld from Stone Age times and it continues to hold that vital importance as a precious source of water. Vegetation, which is predominated by acacia is largely well preserved. There is a significant presence of *swarthaak* (*Acacia mellifera* subsp. *Detinens*) both on the lower plain and the plateau above the ridge (Figure 2). On the lower plain is overlain by a calcrete gravel admixture and occasionally red-brown stones. Mid-distance from the southern limits of the property as we move north towards the ridge roughly running parallel with the Vaal River, there are significant exposures of calcrete gravel and hardpan (Figure 3), which gives way to light brown soils approaching the base of the ridge. The ridge or mini-escarpment is a prominent geomorphological feature of successive beds of dolomite (Figure 4). The ground rises 30m to a plateau. The eastern part of the plateau has exposures of calcrete while the western part closer to the ridge is overlain by dolomite stones and hardpan (Figure 5). Going further north and beyond the property the ground rises again across another escarpment. On a larger scale such is the relationship between the Orange River valley and the extensive Ghaap Plateau to its north.

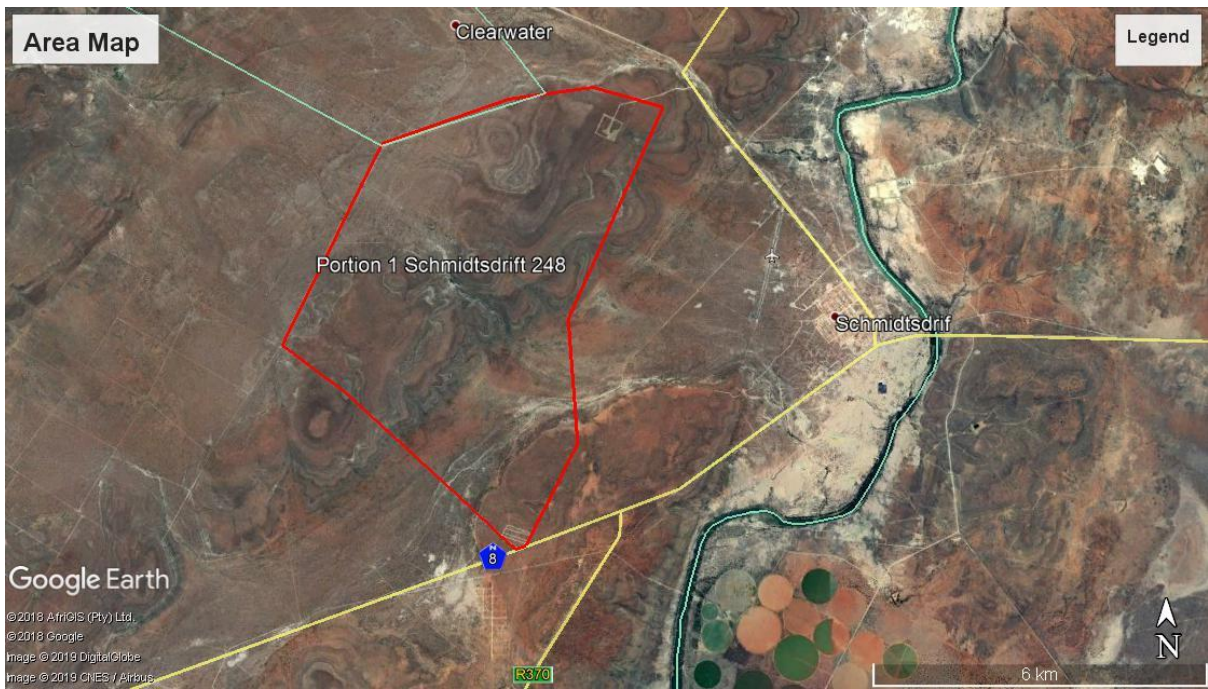


Figure 1: Google-Earth map shows the location of Portion 1 of the Farm Schmidtsdrift 248 (Jakhalsfontein) west of the Vaal River.



Figure 2: View northwest from the plain towards the ridge shows flat terrain and acacia bushes.



Figure 3: Calcretic gravel and hardpan in the middle area of the plain below the ridge.



Figure 4: The ridge is a sedimentary landform with successive beds of dolomite.



Figure 5: Dolomitic hardpan in the western part of the plateau occupying the northern part of the farm.

5. ARCHAEOLOGICAL AND HISTORICAL CONTEXT

The cultural sequence outlined below is based on archaeological reconstruction and characterises the broader area.

The Stone Age Period

Many occurrences of Stone Age artifacts were recorded on the farm Jakhalsfontein of which a majority are scattered observations. The stone tools, which comprise mainly cores, scrapers, flakes and blades, are spread throughout the property without significant concentrations to indicate regular activity. All finds fall within the Middle Stone Age (MSA) to Late Stone Age continuum, dating from 250 000 years ago to c 3000 years BP. The MSA was marked by the introduction of a new tool kit which included prepared cores, parallel-sided blades and triangular points hafted to make spears. During the Late Stone Age technology shifted significantly to microlithic scrapers and segments made from very fine-grained rock.

The Iron Age

No sites dating to the Iron Age were found.

Historical Context

The area is historically home to the BaTlhaping segment of the Tswana, who descended from the Iron Age people and possibly with roots in the Stone Age cultures of the area. The early 19th century was a political turning point with an increasingly uncertain security situation developing and internal displacements. The first of these episodes was the Difaqane characterised by inter-tribal raids and migrations.

The Griqua people occupied the area at the confluence of the Vaal and Orange Rivers in the 19th century. Historically their cradle was in the north-eastern Cape Colony being predominantly of Khoi-Khoi stock with an infusion through marriage of other groups in the area. Adam Kok 1 is considered the founding leader. He moved his people north from the Cape Colony as the colonial frontier was expanding northward. His successor, Andries Waterboer, settled with his people in what became Griqualand West and therein comes the historical connection between the BaTlhaping and the Griqua. The Griqua established a town called Klaarwater and subsequently renamed Griquatown. Meanwhile white hunters, traders and missionaries also entered the area. A little later the Afrikaners arrived bringing their stock as part of a mass exodus from the Cape called the Great Trek. The discovery of diamonds at Kimberley sparked the “rush”. The area which became known as Griqualand West was subsequently incorporated into the Cape Colony in the 1880s.

Orange and Vaal River alluvial diamond diggings

Mining of alluvial diamonds was the first dramatic point of contact with Europeans. The first diamonds were discovered in 1867 near Hopetown near the Orange River in what was then the Cape Colony. Another find was made on a farm called Paarde Kloof on the Orange River, also in the locality of Hopetown (Payton 1872, p1). Thereafter the alluvial diamonds along the Vaal River Valley gained spotlight starting in 1869 when a party of prospectors from Natal organised by the British Army launched explorations and diggings. As they continued the search for the gemstones along the valley they struck good finds at Klipdrift (Barkly West). These finds sparked South Africa's first diamond rush. Following the news men began to flock from Britain and elsewhere to the new diggings. By April 1871 c. 5000 men had swarmed the

Vaal, Modder, and Orange Rivers. The alluvial stones from the region proved to be of high quality. The miners staked claims while the local Griqua chiefs and the Boer Republics of the Transvaal and Orange Free State also joined in the fray. Ownership rights were initially given to local chiefs and Boer Trekkers. But the diggers proclaimed the Klipdrift Republic on 30th July 1870 with Stafford Parker as its elected president. In 1872, the British annexed the diamond fields and proclaimed Griqualand West as a crown state. It was subsequently incorporated into the Cape Colony in 1880. The majority of the prospectors abandoned the various Vaal River claims in the wake of richer finds at Kimberley in 1871. Mining of the river gravels has been going on sparking sporadic rushes over the last nearly one and half centuries.³

Schmidtsdrift was established as ford across the Vaal River linking Kimberley to Griquatown. The area around Schmidtsdrift was declared Crown Trust Land in 1827 reserved for the BaTlhaping and Griqua people. The communities vacated the land in 1968 to pave way for the South African Defence Forces (SADF) to establish a military base for training and ordnance testing. At the end of the war in Namibia and the withdrawal of South African troops, the training facility was decommissioned, and the government resettled members of the 31 Battalion consisting of elements of the !Xun (also known as Vasekele) and Khwe (known also as Mbarakwengo) Bushman (San) at Schmidtsdrift, but later moved them to Platfontein near Kimberley.⁴

4. KEY STAKEHOLDERS AND CONTACT DETAILS

Stakeholder engagement is a critical process to integrate social concerns to environmental and cultural planning. The HMP should be a product of an inclusive and transparent stakeholder involvement process providing all relevant stakeholders (in particular local communities) an opportunity to contribute their opinions to management plan. However, prevailing social conditions did not permit public participation at the grassroots level. The general public mood is unsettled because of expectations on service delivery which they contend have not been fulfilled. King Adam Kok V, the paramount authority of the Griqua expressed support for the

³ The Barkly West & Vaal River Diggings. Found at: <http://www.on-the-rand.co.uk/Diamond%20Grounds/Barkly%20West.htm>

⁴ Kleinbooi, K. 2007. Community Land Claim. University of the Western Cape.

project in a signed consent form. Mr Leonard Steenkemp is a member of the Community Property Association in Schmidtsdrift. He expressed support for the project in a signed consent form.

5. LEGAL CONTEXT AND MANAGEMENT CONTEXT

5.1. The statutes

Various pieces of legislation and policies intersect on the protection of heritage resources.

- In Sections 3 of the **National Heritage Resources Act (No 25 of 1999)** heritage is defined under the rubric of National Estate, and examples of commonly encountered typologies of heritage resources are given. Section 3(3) outlines criteria upon which heritage value is ascribed. This Section is useful as a field checklist for the identification of heritage resources.
- Section 34 provides automatic protection for buildings and structures more than 60 years old until it can be proven that they do not have heritage value: *No person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.*
- Section 35 prohibits the destruction of archaeological and palaeontological resources without an approval permit from a heritage authority.
- Section 38 of the National Heritage Resources Act is the foundation for the heritage impact assessments that have been conducted on the Farm Jakhalsfontein.
- Section 31 of the **Constitution of the Republic of South Africa Act (No 108 /1996)** provides guarantees for the rights of cultural, religious and linguistic communities.
- Section 2(2) of **the National Environmental Management Act (No 107/ 1998)** state principles of sustainable environmental management as they relate to the welfare of communities regarding their physical psychological, developmental, cultural and social interests.

Section 36 of the NHRA provides for the protection of certain graves and burial grounds. Graves are generally classified under the following categories:

- Graves younger than 60 years;

- Graves older than 60 years, but younger than 100 years;
- Graves older than 100 years; and
- Graves of victims of conflict
- Graves of individuals of royal descent
- Graves that have been specified as important by the Ministers of Arts and Culture.

This HMP is mindful of public sensibilities about the sanctity of graves and burial grounds whether they are protected by the law or not.

The National Environmental Management Act

This act states that a survey and evaluation of cultural resources must be done in areas where development projects that will affect 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 is a much broader undertaking to cater for cultural and social needs of people. Any disturbance of landscapes and sites that constitute the nation's cultural heritage should be avoided as far as possible and where this is not possible the disturbance should be minimized and remedied.

The Burra Charter on Conservation of Places of Cultural Significance

Generic principles and standards for the protection of heritage resources in South Africa are drawn from international charters and conventions. In particular South Africa has adopted the **ICOMOS Australia Charter for the Conservation of Places of Cultural Significance (the Burra Charter 1999)** as a benchmark for best practice in heritage management.

5.2. Management Context

The farm Jakhalsfontein is state land under the stewardship of the Department of Rural Development and Land Reform. At the present time, there are no commercial activities on the property.

6. THE PAST AND PRESENT USES OF THE HERITAGE

As mentioned earlier, the area around Schmidtsdrift was declared Crown Trust Land in 1827 reserved for the BaTlhaping and Griqua people. The government appropriated the land in 1968 in act of forced removal. As the property became state land the South African Defence Forces (SADF) established a military base for drills, target shooting and ordnance tests. At the end of the war in Namibia and the withdrawal of South African troops, the training facility was decommissioned, and the government resettled members of the 31 Battalion consisting of elements of the !Xun (also known as Vasekele) and Khwe (known also as Mbarakwengo) Bushman (San) at Schmidtsdrift, but later moved them to Platfontein near Kimberley

6. CONDITION SURVEY/STATE OF CONSERVATION OF THE HERITAGE RESOURCES

SITE NO	COORDINATES		PERIOD
JKF04	28°44'2.30"S	23°59'34.60"E	Modern?



DESCRIPTION: Flat area, red-brown soils. Oval setting of stones 1m x 0.80m with headstone placed at the eastern end. Possible burial.

HERITAGE SIGNIFICANCE	Must be protected under Section 36 of NHRA
CONDITION	Undisturbed
MITIGATION	Protection or further investigation if the area will be mined.

SITE NO	COORDINATES		PERIOD
JKF05	28°44'0.20"S	23°59'36.50"E	Modern?



DESCRIPTION: Flat area, red-brown soils. Scattered bushes. Suspicious pile of stones with headstone placed at the north-eastern end. Possible burial.

HERITAGE SIGNIFICANCE	Must be protected under Section 36 of NHRA
CONDITION	Undisturbed.
MITIGATION	Protection further investigation if the area will be mined.

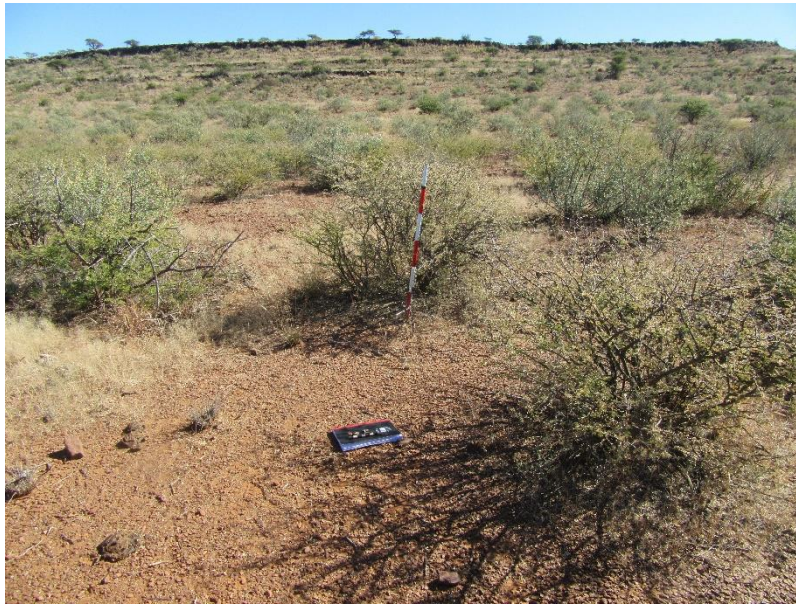
SITE NO	COORDINATES		PERIOD
JKF08	28°43'57.40"S	23°59'17.10"E	Modern?



DESCRIPTION: Flat area with acacia bushes including *swarthaak*. Oval pile of stones (2.5m long x 1.80m wide) oriented NS may be a burial.

HERITAGE SIGNIFICANCE	Must be protected under Section 36 of NHRA
CONDITION	Undisturbed.
MITIGATION	Protection or to be further investigated if the area will be mined

SITE NO	COORDINATES		PERIOD
JKF16	28°42'32.20"S	23°59'21.50"E	20 th C



DESCRIPTION: Shooting range.

HERITAGE SIGNIFICANCE	Evidence of hunter-gatherer activities during the MSA/LSA
CONDITION	Undisturbed.
MITIGATION	Proposal for memorial plaque.

SITE NO	COORDINATES		PERIOD
JKF33	28°41'51.10"S	23°59'15.50"E	Modern



DESCRIPTION: Old dam (breached) across the stream trending ESE across the ridge. A stonewall reinforced earth embankment.

HERITAGE SIGNIFICANCE	Early commercial farming period.
MITIGATION	Further investigations required if this area will be mined.

SITE NO	COORDINATES		PERIOD
JKF36	28°41'59.40"S	23°59'26.80"E	Modern







DESCRIPTION: Located on the ridge on the western side of the pass. Below the summit of the ridge there are 6 horseshoe or arced walls with cement binder, the open side is facing the ridge. In this arc there is a square or horseshoe setting of stones (2m x 2m). On the summit of the ridge (10 m height above the walls and 50m apart) there are more short walls. Overall the spatial layout is one of a double row of defensive walls one row on the summit of the ridge and the other below. Hand grenade components.

HERITAGE SIGNIFICANCE	Evidence of military training activities
CONDITION	Good
MITIGATION	The landscape must be preserved as a landmark of military activities on the farm. Memorial plaque.

SITE NO	COORDINATES		PERIOD
JKF37	28°41'45.30"S	23°58'59.80"E	Modern





DESCRIPTION: Located on the plateau near the pass. Foundation and floor remains of a square building possibly a farmhouse.

HERITAGE SIGNIFICANCE	Evidence of early commercial farming
CONDITION	Undisturbed.
MITIGATION	Further investigations required if this area will be mined.

Table 1: Inventory of heritage sites.

SITE NO	LATITUDE	LONGITUDE	PERIOD	DESCRIPTION	RANKING	MITIGATION
JKF04	28°44'2.30"S	23°59'34.60"E	Modern?	Flat area, red-brown soils. Oval setting of stones 1m x 0.80m with headstone placed at the eastern end. Possible burial.	High	Protection or further investigation if the area will be mined.
JKF05	28°44'0.20"S	23°59'36.50"E	Modern	Flat area, red-brown soils. Scattered bushes. Suspicious pile of stones with headstone placed at the north-eastern end. Possible burial.	High	Protection or further investigation if the area will be mined.
JKF08	28°43'57.40"S	23°59'17.10"E	Modern?	Flat area with acacia bushes including swarthaak. Oval pile of stones (2.5m long x 1.80m wide) oriented NS may be a burial.	High	Protection or further investigation if the area will be mined.
JKF16	28°42'32.20"S	23°59'21.50"E	20 th C	Shooting range at the base of a ridge. Ridge use as background for fired munitions.	Medium B	Memorial plaque
JKF33	28°41'51.10"S	23°59'15.50"E	Modern	Old dam (breached) across the stream trending ESE across the ridge. A stonewall reinforced earth embankment.	Medium B	Further investigations required if this area will be mined.
JKF36	28°41'59.40"S	23°59'26.80"E	Modern	Located on the ridge on the western side of the pass. Below the summit of the ridge there are 6 horseshoe or arced walls with cement binder, the open side is facing the ridge. In this arc there is a square or horseshoe setting of stones (2m x 2m). On the summit of the ridge (10 m height above the walls and 50m apart) there are more short walls. Overall the spatial layout is one of a double row of defensive walls one row on the summit of the ridge and the other below. Hand grenade components.	High	The landscape must be preserved as a landmark of military activities on the farm
JKF37	28°41'45.30"S	23°58'59.80"E	Modern	Located on the plateau near the pass. Foundation and floor remains of a square building possibly a farmhouse.	Medium B	Further investigations required if this area will be mined (Excavation/sire destruction permit).

Table 2: Heritage Sites (Morris & Louw, 2018 Survey)

SITE	LATITUDE	LONGITUDE	NOTES	RANKING	MITIGATION
M05	S28°41'43.5"	E23°59'02.4"	Stone wall (kraal)	Medium B	Protection
M06	S28°41'43.5"	E23°59'01.7"	Stone wall	Medium B	Protection
M07	S28°41'41.3"	E23°59'02.5"	First water trough	Medium B	Destruction Permit required if site will be mined
M08	S28°41'41.5"	E23°59'0.5"	Second water trough	Medium B	Destruction Permit required if site will be mined
M09	S28°41'42.6"	E23°59'03.9"	Stone wall	Medium B	Protection
M11	S28°41'41.4"	E23°58'59.1"	Rock feature, possible trap	Medium B	Destruction Permit required if site will be mined
M12	S28°41'42.7"	E23°58'59.8"	Water well	Medium B	Protection
M13	S28°41'44.6"	E23°58'59.0"	Ash heap (Lenin bottle)	Medium B	Further investigations required if this area will be mined.
M14	S28°41'49.7"	E23°58'58.1"	Stone wall (Kraal)	Medium B	Protection
M15	S28°41'49.4"	E23°58'55.1"	Foundation of structure	Medium B	Further investigations required if this area will be mined.
M16	S28°41'46.5"	E23°58'53.3"	Collapsed structure	Medium B	Further investigations required if this area will be mined.
M17	S28°41'46.2"	E23°58'44.3"	Porcelain and metal	Medium B	Further investigations required if this area will be mined.

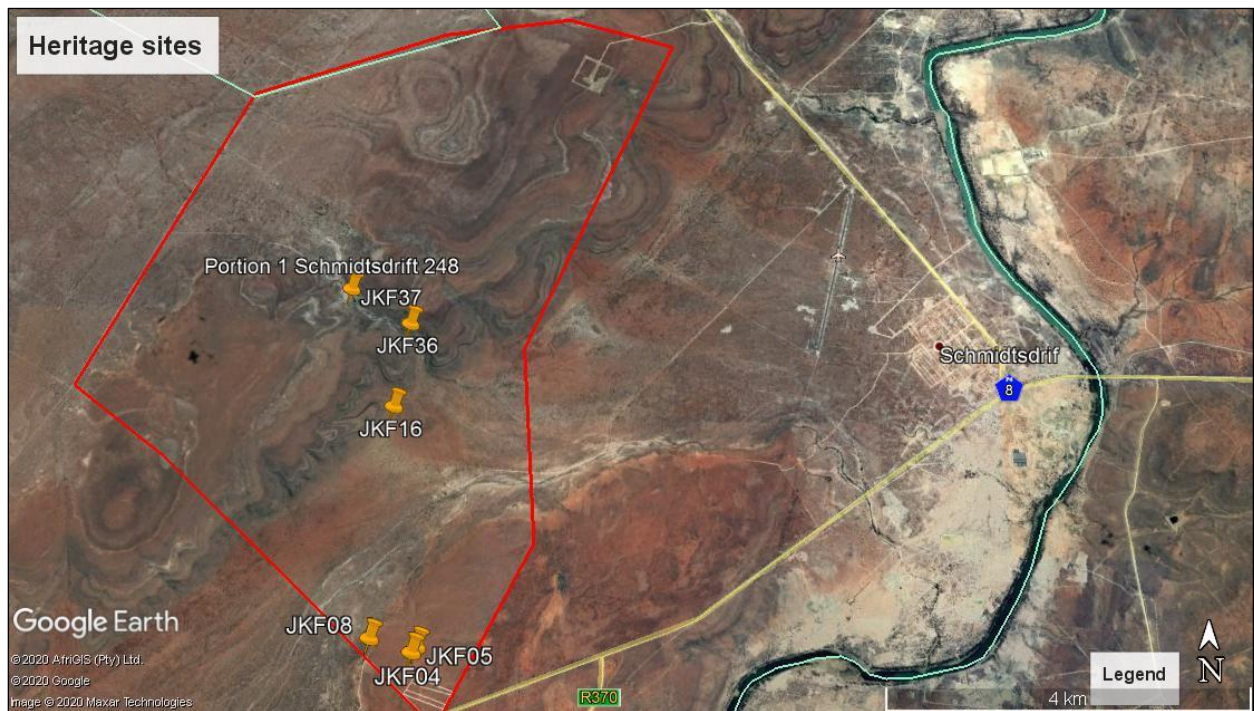


Figure 6: Jakhalsfontein Farm, location of heritage sites.

5.1. Ranking of sites and Risk Assessment

	RANKING	SIGNIFICANCE	NO OF SITES
1	High	National and Provincial heritage sites (Section 7 of NHRA). All burials including those protected under Section 36 of NHRA. They must be protected.	3 possible burials
2	Medium A	Substantial archaeological deposits, buildings protected under Section 34 of NHRA. Footprint of early modern mining. Cultural Landscapes. These may be protected at the recommendations of a heritage expert.	1 (horseshoe stone walls) 4 other walls
3	Medium B	Sites exhibiting archaeological and historical characteristics of the area, but do not warrant further action after they have been documented.	7 including (shooting range & 1 foundation remains of an old farmstead)
		TOTAL	15

6. SWOT ANALYSIS

STRENGTHS	OPPORTUNITIES
SAHRA has flagged significant sites for protection under a Heritage Management Plan.	Development of the sites for tourism and education.
The developer has expressed commitment to protect the sites.	The stone walls fall within a special category of Grade III sites.
WEAKNESSES	THREATS
Funding is limited.	Public ignorance about conservation of heritage.

7. GUIDING PRINCIPLES

Principles of conservation are derived from the Burra Charter:

- (i) Conservation is based on a respect for the existing *fabric, use, associations* and *meanings*. It requires a cautious approach of changing as much as necessary but as little as possible (Article 3.1).
- (ii) Changes which reduce *cultural significance* should be reversible, and be reversed when circumstances permit (Article 15.2).

This HMP is a management tool that presents an approach, principles and actions for the sustainable use and conservation of the heritage resources on the farm Jakhalsfontein and the sum of tangible and intangible heritage it contains. The plan integrates heritage into the proposed mining development. The HMP identifies and prioritises management responsibilities and imperatives needed for proper management of the heritage resources. An HMP should conform to the following basic principles:

- Effectiveness – the HMP should ensure realisation of the objective;
- Functionality – the HMP should be workable; and
- Realism – the HMP should be achievable and implementable.

8. VISITOR MANAGEMENT

The main purpose of a visitor management plan is to enhance the experience of visitors, while ensuring that negative impacts of large numbers are mitigated and avoided. There is no tourism facility or service on the farm. The site can attract

occasional visitors with focus interest in military history. There is no plan that the sites will be developed for regular visitations in the future.

9. OBJECTIVES, STRATEGIES AND ACTION PLANS TO COVER: SITE MANAGEMENT, PRESENTATION, INTERPRETATION, SAFETY, RESEARCH AND EDUCATION, MARKETING AND CONSERVATION

9.1. Strategic Objectives

The following are Strategic Objectives of the Heritage Management Plan:

SO 1: To raise awareness and appreciation about the heritage sites and strengthen capacity to protect the heritage resources on the farm.

SO 2: To provide the developer with capacity to monitor & assess the economic, social and environmental impacts of activities on heritage resources on the farm in the present and future.

SO 3: To encourage collaboration among stakeholders to conserve the heritage resources.

The Strategic Objectives for the HMP and concomitant Action Programmes must be incorporated into the Environmental Management Plan (EMP). Implementing the Strategic Objectives involves detailing things to do under Action Categories with Expected Outcomes, Performance Indicators, Lead Parties and Timeframes. The Action Plan is implemented over 5 years.

9.2. Action Plan

To raise awareness and appreciation about the heritage sites and strengthen capacity to protect the heritage resources on the farm						
<i>Action Category</i>	<i>Specific Action</i>	<i>Expected Outcome</i>	<i>Performance Indicators</i>	<i>Main Stakeholders</i>	<i>Lead Parties</i>	<i>Timeframe</i>
1. Erect Memorial Plaques	1.1 Liaison with SANDF	1.1 Elimination of physical threats to the sites	1.1 Conservation of the sites	Developer SAHRA	Developer SANDF	2020-2021
	1.2 Enforce 100 m buffer zone around the sites	1.2 Eliminate physical threats to the sites	1.2 Conservation of the sites			2020-2025
2. Capacity building for conservation	2.1 Incorporate HMP into Environmental Management Plan 2.2 Induction for Environmental Control Officer	2.1 Policy guarantees for the protection of the flagged heritage sites 2.2 Capacity building	2.1 Conservation of the sites 2.2 Implementation of monitoring programme	Developer SAHRA DMR	Developer	2022-2025

10.A SYSTEM WHEREBY APPROVALS FOR CHANGES ARE OBTAINED

A 100m buffer zone will be enforced around the sites including the graves. If the developer plan any activities encroaching into the buffer zone, permission must be obtained from SAHRA.

11. MONITORING PROGRAMME

A Monitoring, Evaluation, Learning and Intervention (MELI) tool should be established for the HMP. MELI is described as follows:

Monitoring is the action of determining where implementation of the Action Plan stands. It is the ongoing, systematic collection of data to provide management and the main stakeholders with a good indication of the progress in terms of the Action Plan.

Evaluation informs the manager and stakeholders of the degree of effectiveness in terms of outcomes and impacts of the activities. Evaluation must also assess unplanned outcomes and impacts for which established baseline values may not exist.

Learning refers to continuous learning from, and the insights gained from the results of the monitoring and evaluation. Intervention is the evidence-based action on the Monitoring, Evaluation and Learning that must be taken to overcome obstacles or challenges faced during the implementation of the HMP.

A monitoring programme is a watching brief for threats anticipated to arise from the proposed activities. Monitoring is the responsibility of the Environmental Control Officer who will be trained in field identification of artefacts and archaeological features. A qualified heritage expert will be employed to conduct inspections at reasonable times and to submit a monitoring report to SAHRA or the provincial heritage resources authority.

11.1. Identification of threats

Damage during vegetation clearance and general site preparation (grubbing)

- Opening of access roads
- Uncoordinated movement of personnel and machinery

- Earthmoving operations
- Siting of labour camps

11.2. Mitigation Measures

- (i) Middens: If a midden with substantial concentrations of artefacts is found, a heritage expert must be called to advise on appropriate mitigation measures
- (ii) Stone Age lithics: If concentrations of stone artefacts are observed, a heritage expert must be called to advise on appropriate mitigation measures to be followed.
- (iii) A 100m buffer zone is applied to all the sites which have been flagged in this management plan
- (iv) A permit is required for the destruction or disposal of some of the sites flagged as has been indicated in Tables 1 & 2 in this Management Plan.

11.3. Protocols of Monitoring

- (i) A monitor should be a suitably qualified and experienced heritage expert.
- (ii) Monitoring/inspection visits must be guided by specific objectives
- (iii) Although monitoring visits may be conducted without an appointment it is recommended that prior notice is served to the site manager and /or ECO.
- (iv) All inspection visits must be documented and a report lodged with SAHRA.
- (v) Should it be necessary to carry out archaeological salvage, permission must be obtained from SAHRA and excavations done in accordance with set minimum standards.
- (vi) The ECO will be required to send a report of the condition of the sites to the heritage authority once every 12 months.
- (vii) SAHRA may undertake occasional inspection visits and assess compliance with the commitments made in Heritage Management Plan.
- (viii) If problems have been encountered with the implementation of the Heritage Management Plan, the monitoring archaeologist will advise in writing on appropriate remedial actions.

- (ix) The issuing of a “cease works order” is the discretion of SAHRA or provincial heritage resources authority based on observations of the monitoring archaeologist.

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