

**PHASE I HERITAGE IMPACT ASSESSMENT (INCLUDING  
PALAEOLOGICAL ASSESSMENT) REQUESTED IN TERMS OF  
SECTION 38 OF THE NATIONAL HERITAGE RESOURCES ACT (NO  
25/1999) FOR A MINING PERMIT ON A PIECE OF STATE LAND AT  
GONG GONG ON THE NORTHERN BANK OF THE VAAL RIVER IN  
THE MAGISTERIAL DISTRICT OF BARKLY WEST,  
NORTHERN CAPE PROVINCE**

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### DECLARATION OF INDEPENDENCE

AHSA Pty Ltd is an independent consultancy: We hereby declare that we have no interest, be it business, financial, personal or other vested interest in the undertaking of the proposed activity, other than fair remuneration for work performed, in terms the National Heritage Resources Act (No 25 of 1999).

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All possible care was taken to identify and document heritage resources during the survey in accordance with best practices in archaeology and heritage management. However it is always possible that some hidden or subterranean sites are overlooked during a survey. AHSA will not be held liable for such oversights and additional costs thereof.



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## **ABBREVIATIONS**

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

## DEFINITIONS

**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”.<sup>1</sup>

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

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

**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.

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<sup>1</sup> 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.

**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 2<sup>nd</sup> millennium AD marked by the emergence of complex state society and long-distance trade contacts.

**Late Stone Age:** The period from  $\pm$  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 Heritage Impact Assessment report has been prepared in accordance with Section 38 of the National Heritage Resources Act (No 25 of 1999) in respect of the proposed mining application on a Portion of State Land situated on the northern bank of the Vaal River between Longlands and Delportshoop, Barkly West District, Northern Cape. An HIA is a precaution in mitigation of likely negative impacts of the proposed mining on heritage resources.

The following is a summary of the findings of the survey:

2. For more than a century the area has been worked by miners seeking diamonds in the alluvial gravels. The impact of the workings is starkly evident from the pits, and piles of stones of various grades. There are a few places untouched with a possibility of finding Stone Age material *in situ*. In archaeological terms the heritage sensitivity of the area is therefore found to be low. Yet the old piles and dykes also bear a cultural signature, a footprint of early mining methods to reclaim diamond bearing gravels in the riverbed by redirecting the flow of the river.

3. *The Stone Age*

4. No material dating to the MSA/LSA was found on the property.

5. *The Iron Age*

6. No Iron Age sites were found on the property

7. *Evidence of early modern mining*

During the late 19th and early 20th centuries, miners extracted alluvial diamonds, and in order to continue operations at high flood line they built walls barriers (or dykes – *binne draai* in Afrikaans) to create artificial channels directing water away from the workings. One example has been recorded although no further action is deemed necessary to protect it.

### 8. Ranking of Findings

	<b>RANKING</b>	<b>TOPOLOGY AND SIGNIFICANCE</b>	<b>No of sites</b>
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.	0
2	Medium A	Substantial archaeological deposits, buildings protected under Section 34 of NHRA. Footprint of early modern mining. These may be protected at the recommendations of a heritage expert.	0
3	Medium B	Sites exhibiting archaeological characteristics of the area, but do not warrant further action after they have been documented.	1 (stone dyke)
4	Low	Heritage sites which have been recorded, but considered of minor value relative to the proposed development.	0
		<b>TOTAL</b>	<b>1</b>

### 9. Recommendations and Conclusions

It is not necessary to protect the old stone dykes which are often breached by the river flow in the rain season. The mining right can therefore be approved. In the event of discovery of other heritage resources when mining commences, the Provincial Heritage Resources Authority or SAHRA must be alerted immediately and an archaeologist or heritage expert called to attend.



## **1. INTRODUCTION**

This document is a Heritage Impact Assessment (HIA) report prepared on behalf of Kimswa Mining (Pty) in support of an application for a Mining Permit on a piece of State Land 5 ha in extent on the northern bank of the Vaal River Longlands, Barkly West District, in the Northern Cape Province. On 8 February 2019 a ground survey was conducted investigating the possible occurrence of archaeological and other heritage resources. The report is in accordance with the prescripts of Section 38 of the National Heritage Resources Act (No 25 of 1999) for the assessment of heritage sensitivity and if necessary propose mitigation measures where a proposed development is likely to disturb or destroy heritage resources.

### **1.1. Nature of development and expected impacts**

The applicant intends to mine alluvial diamonds in superficial gravels (placers) on a portion State Land 5 ha in extent on the northern bank of the Vaal River. The planned mining technique is opencast block mining process with waste earth and gravels from the plant being used as backfill material prior to final rehabilitation. Opencast mining inevitably results in the disturbance or destruction of heritage resources where they exist.

## **2. LOCATION AND DESCRIPTION OF THE RECEIVING ENVIRONMENT**

The targeted area is located on the northern bank of the Vaal River 40 km northwest of Barkly West, and 14 km upstream from the confluence of the Vaal and Harts River (Lat: 28°27'6.39"S; Long: 24°19'35.94"E).<sup>2</sup> It is located mid-distance between the two riverside villages of Longlands (east) and Delportshoop (west). The key geomorphological feature is the Vaal River (known in seSotho as 'Lekwa'). This perennial river meanders across the semi-arid southern plains of the country from its sources on the western foot of the Drakensberg Mountains, only 240km from the Indian Ocean. But it flows west some 1 120km to its confluence with the Orange River, which continues in a meandering course 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 (Figure 1).

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<sup>2</sup> Taken at the bridge across the Vaal River, the western limits of the proposed mining area.

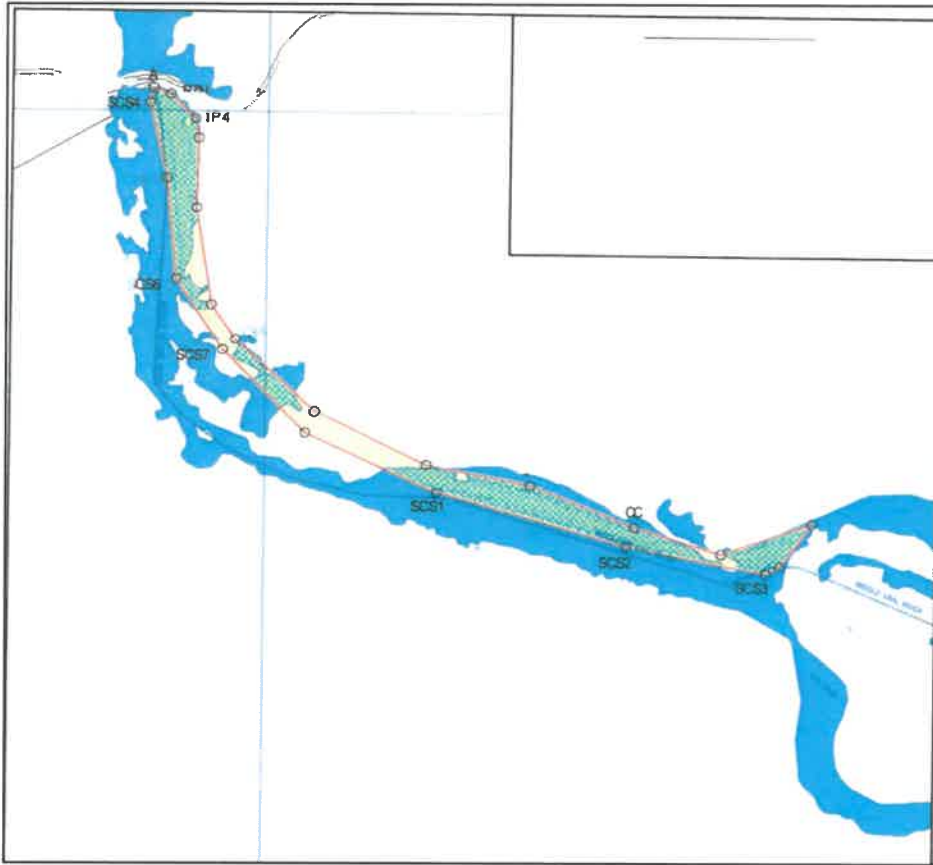


Figure 1: Locality map shows the location of a Portion of State land on the northern bank of the Vaal River on the outskirts Longlands.<sup>3</sup>

<sup>3</sup> Kimsa Mining Pty Ltd



Figure 2: Google-Earth map shows the location of the proposed mining on the Vaal River between Longlands and Delpoortshoop.

Over a period of thousands of years the Vaal River has flowed over a wide plain with its water channels shifting and in the process depositing gravels mixed with sand. Geological theory has it that the diamonds were eroded from kimberlite pipes and deposited along the course of the river.

It is evident that the original surface has been to a large disappeared as a result of mining during the past 130 years. Several waves of diamond seekers have worked through the gravels; some of these operators might have had mining rights, but reportedly a majority were illegal fortune seekers often working by night with pick, shovel and wheelbarrows and dispersing at dawn. Rehabilitation of open cast mines only came into force recently with the new environmental legislation and supporting regulations. Extensive digs and piles of stones in various grades is evidence and legacy of this period in the history of mining. From the known archaeological potential of the area, there can be a few places where Stone Age relics can be expected to be found *in situ*.

The original surface would have comprised alluvial gravels and in places an overburden of Kalahali sands of varying depths accumulating on the wider floodplain

after the alluvial action. Vegetation is largely degraded mixed scrub of the Kimberley Thornveld dominated by acacias (Figures 2-6).



Figure 3: Section of the Vaal River shows the north bank.



Figure 4: Stone dykes on the north bank of the Vaal River



Figure 5: Evidence of recent mine workings.



Figure 6: Degrade vegetation, acacia bushes.

### **3. SOCIO-ECONOMIC CONTEXT**

Longlands Village and its neighbour, Gong, have largely remained on the margins of the national effort to improve service delivery in rural neighbourhoods. The local community strongly feels that they have been robbed by previous mining operations who neither employed local people nor contributed to local infrastructure development. There is a strong advocacy for local socio-economic beneficiation which has sparked marches and protests. At the time of the fieldwork some community leaders and youths were blocking the drift at Gong Gong across the Vaal



River used by miners and farmers (Figures 7). They were demanding an informal levy. The agreement between Kimswa Mining Pty Ltd and the Community Property Association to establish a mutually beneficial partnership to provide employment relief through a quota system in favour of local youth is therefore hailed as a practical remedy likely to bring material benefits in the short term. This is strong motivation for the proposed mining project.



Figure 7: Drift across the Vaal River at Gong Gong now controlled by members of the local community.

## 4. LEGAL FRAMEWORK

### 4.1. The National Heritage Resources Act (25 of 1999)

The proposed mining requires a Heritage Impact Assessment as set out under Section 38 of the National Heritage Resources Act (No 25 1999). Terms and conditions of an HIA are stated as follows:

38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as—
- (a) the construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
  - (b) the construction of a bridge or similar structure exceeding 50m in length;
  - (c) any development or other activity which will change the character of a site—  
**(i) exceeding 5 000m<sup>2</sup> in extent; or**

- (ii) involving three or more existing erven or subdivisions thereof; or*
- (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or*
- (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;*
- (d) the re-zoning of a site exceeding 10 000 m<sup>2</sup> in extent; or*
- (e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority.*

Other Sections of the **National Heritage Resources Act** (No. 25 of 1999) NHRA of relevant application are:

Section 34 of the NHRA for provisional protection of all structures and features older than 60 years.

Section 35 (4) of the **NHRA** prohibits the destruction of archaeological, palaeontological and meteorite sites:

Section 36 of the **NHRA** gives priority for the protection of Graves and Burial Grounds graves and burial grounds more than 60 years old, and graves and burial ground of victims of conflict.

#### **4.2. International Principles and Policies**

In practice heritage management advocates protection and respect for the sanctity of all graves regardless of their age. International principles are based on the same ethical considerations. The the **Vermillion Accord on Human Remains** adopted by the **World Archaeological Congress (WAC)** at the WAC Inter-Congress in South Dakota (USA) urges “*respect for the mortal remains of the dead shall be accorded to all, irrespective of origin, race, religion, nationality, custom and tradition.*”

Some generic principles and standards for the protection of heritage resources are drawn from international charters and conventions, in particular the **Australia Charter for the Conservation of Places of Cultural Significance (the Burra Charter 1999)**, which South Africa has adopted.

## **5. APPROACH AND METHODOLOGY**

### **5.1. Literature Survey**

This report is partly informed by a survey of literature on the archaeological and historical context and heritage potential of the area. A number of reports generated through heritage impact assessment studies in the broader area were researched:

**Matenga, E. 2017:** Phase I Heritage Impact Assessment Requested in terms of Section 38 of the National Heritage Resources Act No 25/1999 for a Mining Right on Vaalbos Island on the Vaal River near Longlands, Barkly West District, Northern Cape Province.

Vaalbos Island and the property under study are adjoining with the former situated upstream and occupying the southern bank of the Vaal River. They have been equally affected by mining in the last century. Nothing was seen of the footprint of the Stone Age people except a single artifact found among the river pebbles. Protection of some of the stone dykes constructed to direct water flow and stone retained ramps for the placement of earth moving equipment was proposed as mitigation.

This author has had the privilege of carrying out several other impact surveys in the vicinity of Longlands and in the broader area:

**Matenga, E. 2018.** Phase I Heritage Impact Assessment (including Palaeontological Assessment) requested in terms of Section 38 of the National Heritage Resources Act No 25/1999 for a Mining Permit and related infrastructural activities on a piece of the farm Longlands 350 situated in the Magisterial District of Barkly West, Northern Cape Province

**Matenga, E. 2018.** Phase I Heritage Impact Assessment (including Palaeontological Assessment) requested in terms of Section 38 of the National Heritage Resources Act no 25/1999 for the proposed mine prospecting and application for a Mining Right on the Farm 85, Barkly West District, Northern Cape province.



**Matenga, E. 2017.** Phase I Heritage Impact Assessment (including Palaeontological Assessment) requested in terms of section 38 of the National Heritage Resources Act No 25/1999 for the Proposed Mine Prospecting on a Portion of Farm 393, Barkly West District, Northern Cape Province.

**Matenga, E. 2016.** Phase I Heritage Impact Assessment (including Palaeontological Assessment) requested in terms of Section 38 of the National Heritage Resources Act No 25/1999 for the Proposed Mine Prospecting on a Portion of the Remaining Extent of the Farm 84 & Portion of farm 393, Barkly West District, Northern Cape Province.

Other specialists have also undertaken heritage impact surveys in the area, e.g. Dreyer, C. 2016. Archaeological and Historical Investigation of the Proposed Diamond Mining Activities at the Farm Winter's Rush (Longlands 350), Barkly West, Northern Cape.

The findings of this survey are therefore evaluated in the context of this background knowledge of the heritage sensitivity of the broader area.

## **5.2. Ground Survey**

Data was collected by means of walking surveys, largely random, but also targeting spots seen as likely to yield cultural material. An archaeologist was accompanied by a field assistant. Since the local community is unhappy with a number of unresolved socio-economic issues, as a safety precaution we were accompanied by Mr Terrance Gilbert Van Wyk, a local resident and member of the Community Property Association (CPA) with shareholding in the project.

## **5.3. Significance Ranking**

Heritage sites have are ranked to show potential risks relative to their cultural significance.

*Ranking of Findings*

	<b>RANKING</b>	<b>TYOLOGY &amp; SIGNIFICANCE</b>	<b>NO OF SITES</b>
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.	
2	Medium A	Substantial archaeological deposits, buildings protected under Section 34 of NHRA. Footprint of early modern mining. These may be protected at the recommendations of a heritage expert.	
3	Medium B	Sites exhibiting archaeological characteristics of the area, but do not warrant further action after they have been documented.	
4	Low	Heritage sites which have been recorded, but considered of minor value relative to the proposed development.	
		<b>TOTAL</b>	

## 6. ARCHAEOLOGICAL AND HISTORICAL CONTEXT

### 6.1. Cultural Sequence Summary

PERIOD	EPOCH	ASSOCIATED CULTURAL GROUPS	TYPICAL MATERIAL EXPRESSIONS
Early Stone Age 2.5m – 250 000 YCE	Pleistocene	Early Hominids: <i>Australopithecines</i> <i>Homo habilis</i> <i>Homo erectus</i>	Typically large stone tools such as hand axes, choppers and cleavers.
Middle Stone Age 250 000 – 25 000 YCE	Pleistocene	First <i>Homo sapiens</i> species	Typically smaller stone tools such as scrapers, blades and points.
Late Stone Age 20 000 BC – present	Pleistocene / Holocene	<i>Homo sapiens</i> including San people	Typically small to minute stone tools such as arrow heads, points and bladelets.
Early Iron Age / Early Farmer Period c300 – 900 AD (or earlier)	Holocene	Iron Age Farmers	Typically distinct ceramics, bead ware, iron objects, grinding stones.
Later Iron Age 900ADff	Holocene	Iron Age Farmers, emergence of complex state systems	Typically distinct ceramics, evidence of long distance trade and contacts
(ii) Mapungubwe (K2)	1350AD		Metals including gold, long distance exchanges
(ii) Historical period	Nguni / Sotho/Venda people	Iron Age Farmers	Mfecance / Difaqane
(iii) Colonial period	19 <sup>th</sup> Century	European settlers / farmers / missionaries/ industrialisation	Buildings, Missions, Mines, metals, glass, ceramics

### 6.2. Appearance of hominids

Proto-humans called hominids appeared in South Africa more than 3 million years ago. The hominid site nearest to the study area is Taung near Vryburg (105km to the northeast). This is a UNESCO World Heritage Site proclaimed together with the Sterkfontein Caves (Krugersdorp) and Makapans Valley (Mokopane) in a serial nomination. No hominid sites have been reported along the Vaal River.

### 6.3. The Early Stone Age (2 million to 250 000 years BP)

The Stone Age dates back more than 2 million years marking the beginning of the cultural sequence divided into three epochs, the Early, Middle and Late Stone Ages. These early people made stone and bone tools, evidence of which is found in caves, rock-shelters and on riversides, edges of streams, and very rarely seen in open

country. These tools included the pear-shaped handaxe, cleavers and core tools.<sup>4</sup> These tool industries called Oldowan and Acheulian were probably used to butcher large animals such as elephants, rhinoceros and hippopotamus. Progressively a good profile of the Stone Age in the Northern Cape Province has been constructed from many heritage impact assessments that have been conducted in recent years. Early (ESA) and Middle Stone Age (MSA) lithics occur over most of area with a more recent find of Later Stone Age (LSA) occupations.<sup>5</sup> The Wonderwerk Cave has become a benchmark for the characterisation of the Stone Age. Excavations reveal a long sequence of occupation spanning the Early (ESA), Middle (MSA) and Later Stone Ages.<sup>6</sup>

#### **6.4. Middle Stone Age (MSA) [250 000 yrs – 30 000 yrs BP]**

The Middle Stone Age (MSA), appeared 250 000 years ago and is marked by the introduction of a new tool kit which included prepared cores, parallel-sided blades and triangular points hafted to make spears. By then humans had become skilful hunters, especially of large grazers such as wildebeest, hartebeest and eland. By humans had evolved significantly to become anatomically modern. Caves were used for shelter suggesting permanent or semi-permanent settlement. There is archaeological evidence from some of the caves indicating the making of fire.<sup>7</sup>

A number of field surveys have been carried in the broader area north of Longlands confirm significant hunter gatherer activity from the MSA onwards.

#### **6.5. Later Stone Age (LSA)[40 000 yrs to ca2000 yrs BP]**

By the beginning of the LSA, humans had evolved to *Homo sapiens* which refer to the modern physical form and thinking capabilities. Several behavioural traits are noticed, such as rock art and purposeful burials with ornaments, became a regular practice. LSA technology is characterised by microlithic scrapers and segments made from very fine-grained rock. Spear hunting continued, but LSA people also

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<sup>4</sup> Deacon, H.J. & Deacon, J. 1999. *Human Beginnings in South Africa: Uncovering the Secrets of the Stone Age*. Cape Town: David Philip.

<sup>5</sup> Schalkwyk, J. 2015. *Heritage Scoping Assessment for the Proposed Perseus-Kronos 765KV Transmission Power Line and Substations Upgrade, Northern Cape and Free State Provinces*, p6.

<sup>6</sup> Humphreys, A.J.B. & Thackeray, A.I. 1983. *Ghaap and Gariiep. Later Stone Age Studies in the Northern Cape*. Cape Town: South African Archaeological Society Monograph Series 2.

<sup>7</sup> Deacon, J & H. Deacon. 1999. *Human Beginnings in South Africa*. Cape Town: David Philip.

hunted small game with bows and poisoned arrows. Practitioners of rock art were ancestors of the San and sites abound in the whole of Southern Africa. Wildebeest Kuil Rock Art Centre is a rock engraving site now with an interpretation centre on land owned by the !Xun and Khwe San situated c. 40km to the southeast from the study area along the R31 road from Kimberley to Barkly West. The site was first known to the public in modern times by the renowned 19th century researcher, George William Stow.<sup>8</sup> A number of rock engravings have been reported in the vicinity of Lime Acres and Danielskuil (ca80km northwest) including recent art ascribed to the Griquas and Khoikhoi.<sup>9</sup>

### **6.6. Early Iron Age**

The Iron Age was a gradual spread or expansion of settlement of different groups of speakers of Bantu languages over a period that spanning more than 2 millennia. These communities indigenous to the continent brought with them domestic animals, crops, pottery and metal technology. However there are few if any sites attributed to the EIA in the western parts of the country<sup>10</sup>, most settlement concentrated in the eastern and wetter part of the country. The woodland zone was preferred for settlement, but there is strong possibility that transhumant pastoralism was practiced and seasonal hunting camps were established in the inhospitable western regions of the country. Furthermore there is increasing evidence that sheep and probably cattle as well might have moved into the area much earlier than the Iron Age.<sup>11</sup>

### **6.7. The Later Iron Age**

The LIA is marked by the presence of extensive stonewalled settlements such as the Tlhaping capital at Dithakong near Kuruman.<sup>12</sup> Recently some pottery possibly

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<sup>8</sup> Wildebeest Kuil Rock Art Centre, at: <http://www.kimberley.co.za/city/wildebeest-kuil-rock-art-centre/> (Consulted 3 May 2017).

<sup>9</sup> Collins, S. 1973. Rock-engravings of the Danielskuil Townlands. *South African Archaeological Bulletin* 109-110: 49-57.; Eastwood, E.B. & Smith, B.W. 2005.

<sup>10</sup> Phillipson, D. W. 2005. *African Archaeology*. Cambridge: University of Cambridge Press.

<sup>11</sup> Evers, T. M. 1988. *Recognition of Groups in the Iron Age of Southern Africa*. Unpublished PhD Thesis, University of Witwatersrand. Huffman 2007. *A Handbook on the Iron Age*. Scottsville: UKZN Press

<sup>12</sup> De Jong 2010: De Jong, R.C. 2010. *Heritage impact assessment report: proposed manganese and iron ore mining right application in respect of the remainder of the farm Paling 434, Hay Registration Division, Northern Cape*. Unpublished report prepared for Kai Batla Minerals Industry Consultants. Pretoria: Cultmatrix, p 36.

dating to the terminal phase of the Later Iron Age has been seen at Schimtdsdrift on the northern bank of the Vaal River.<sup>13</sup>

### **6.8. Historical context**

Historically the area is home to the Tlhaping segment of the Tswana, who descended from the Iron Age and probably from as far back as the Stone Age. The early 19<sup>th</sup> century was a political turning point with an increasingly uncertain security situation and internal displacements playing out. One of the key episodes was the Difaqane, was characterised by inter-tribal raids. From the late 18<sup>th</sup> to early 19<sup>th</sup> centuries Griqua herders (people of Coloured stock from the southwest) settled in this area establishing 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.<sup>14</sup>

### **6.9. A brief history of Vaal River alluvial diamond diggings**

The mining of alluvial diamonds in the Vaal River Valley started in 1869 carried out by a party of prospectors from Natal organised by the British Army. As they continued the search for the gemstones 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 finds 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 Klip Drift Republic on 30th July 1870 with Stafford Parker as its elected president. In the same year Sir Henry Barkly, governor

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<sup>13</sup> Matenga, E. 2018. Phase I Heritage Impact assessment (including Palaeontological Assessment) requested in terms of section 38 of the national heritage resources act no 25/1999 for the proposed mine prospecting on the remainder of the farm Schimtdsdrift 248, Pixley Ka Seme District Municipality, Northern Cape Province.

<sup>14</sup> De Jong, R.C. 2010. Heritage impact assessment report: proposed manganese and iron ore mining right application in respect of the remainder of the farm Paling 434, Hay Registration Division, Northern Cape. Unpublished report prepared for Kai Batla Minerals Industry Consultants. Pretoria: Cultmatrix.

of the Cape visited the diggings, which prompted the miners to rename Klipdrift Barkly West. 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.<sup>15</sup>

The above forms the archaeological and historical context for the identification of heritage resources in the study area.

## **7. FINDINGS OF THE SURVEY**

The history of mining in the area was outlined in Section 2. The impact of workings over a period of more than a century is starkly evident from the pits, piles of stones of various grades. There are a few places untouched with a possibility of finding Stone Age material *in situ*. In terms of archaeology the heritage sensitivity of the area is therefore found to be low. Yet the old piles and dykes also bear a cultural signature, a footprint of early mining methods in which diamond bearing gravels were reclaimed by redirecting the flow of the river.

### **7.1. The Stone Age**

No material dating to the MSA/LSA was found.

### **7.2. The Iron Age**

No Iron Age sites were found on the property

### **7.3. Mining heritage**

During the late 19th century and early 20th century, miners extracted alluvial diamonds, and in order to continue operations during the rainy season they built wall barriers (or artificial dykes – *binne draai* in Afrikaans) to create artificial channels to direct water away from workings (Figure 7). One example has been recorded although no further action is deemed necessary to protect it.

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<sup>15</sup> The Barkly West & Vaal River Diggings. Found at: <http://www.on-the-rand.co.uk/Diamond%20Grounds/Barkly%20West.htm>



Figure 8: Stone dyke on the bank of the river dyke (Lat: 28°27'21.1"S, 24°19'48.5"E)

#### 7.4. Ranking of Findings

	<b>RANKING</b>	<b>TOPOLOGY AND SIGNIFICANCE</b>	<b>No of sites</b>
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.	0
2	Medium A	Substantial archaeological deposits, buildings protected under Section 34 of NHRA. Footprint of early modern mining. These may be protected at the recommendations of a heritage expert.	0
3	Medium B	Sites exhibiting archaeological characteristics of the area, but do not warrant further action after they have been documented.	1 (stone dyke)
4	Low	Heritage sites which have been recorded, but considered of minor value relative to the proposed development.	0
		<b>TOTAL</b>	<b>1</b>

#### 7.5. Assessment of Impacts Using the Heritage Impact Assessment Statutory Framework



### Section 3(3) of the NHRA

The following is an assessment of the value of the identified heritage resources in accordance with Section 3 of the NHRA which defines the National Estate.

*(3) Without limiting the generality of subsections (1) and (2), a place or object is to be considered part of the national estate if it has cultural significance or other special value because of—*

	<b>STATUTORY REFERENCE</b>	<b>OBSERVATIONS</b>
(a)	Its importance in the community, or pattern of South Africa's history	None
(b)	Its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage	None
(c)	Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage	Stone dyke represent an early mining technique
(d)	Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	None
(e)	Its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group	None
(f)	Its importance in demonstrating a high degree of creative or technical achievement at a particular period	None
(g)	Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	None
(h)	Its strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa	None
(i)	Sites of significance relating to the history of slavery in South Africa.	None

## **Section 38 of the NHRA**

Section 38 (Subsection 3) of the National Heritage Resources Act also provides a schedule of tasks to be undertaken in an HIA process:

*Section 38(3) The responsible heritage resources authority must specify the information to be provided in a report required in terms of subsection (2)(a): Provided that the following must be included:*

### ***(a) The identification and mapping of all heritage resources in the area affected***

One site (1) site was recorded dating to within the last 130 years.

### ***(b) An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 6(2) or prescribed under section 7***

There are no Grade I or Grade II sites.

### ***(c) An assessment of the impact of the development on such heritage resources***

The risk ranking defines potential risks based on perceived value of the heritage and potential threats posed by the proposed development.

### ***(i) An evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development***

Rural communities continue to suffer from structural poverty; they were marginalised in the past. Investment in mining is expected to provide stimulus for local economic development. Mining is labour intensive and can contribute immensely to alleviate the current high rate of unemployment. General improvement in the quality of livelihoods in local communities around Gong Gong is expected.

***(j) The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources***

N/A

***(f) If heritage resources will be adversely affected by the proposed development, the consideration of alternatives***

N/A

***(g) Plans for mitigation of any adverse effects during and after the completion of the proposed development.***

In the event of discovery of other heritage resources during site preparation and mining phase, the Provincial Heritage Resources Authority or SAHRA will be informed immediately and an archaeologist or heritage expert called to attend.

## **7.6. Risk Assessment of the Findings**

<b>EVALUATION CRITERIA</b>	<b>RISK ASSESSMENT</b>
Description of potential impact	Negative impacts range from partial to total destruction of surface and under-surface movable/immovable relics.
Nature of Impact	Negative impacts can both be direct or indirect.
Legal Requirements	Sections 34, 35, 36, 38 of <b>National Heritage Resources Act No. 25 (1999)</b>
Stage/Phase	Mining by opencast methods
Nature of Impact	Negative, both direct & indirect impacts.
Extent of Impact	Test pits, excavations and ground clearing has potential to damage archaeological resources above and below the surface not seen during the survey.
Duration of Impact	Any accidental destruction of surface or subsurface relics is not reversible, but can be mitigated.
Intensity	Uncertain.

Probability of occurrence	Medium.
Confidence of assessment	High.
Level of significance of impacts before mitigation	High.
Mitigation measures	If archaeological or other heritage relics are found during the construction phase, heritage authorities will be advised immediately and a heritage specialist will be called to attend. This is standard precaution in view of inherent limitations of archaeological fieldwork.
Level of significance of impacts after mitigation	Low.
Cumulative Impacts	None.
Comments or Discussion	None.

## 8. RECOMMENDATIONS AND CONCLUSIONS

It is not necessary to protect the old stone dykes which are often breached by the river flow in the rain season. The mining right can therefore be approved. In the event of discovery of other heritage resources when mining commences, the Provincial Heritage Resources Authority or SAHRA must be alerted immediately and an archaeologist or heritage expert called to attend

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**Matenga, E. 2018.** Phase I Heritage Impact assessment (including Palaeontological Assessment) requested in terms of section 38 of the national heritage resources act no 25/1999 for the proposed mine prospecting on the remainder of the farm Schimtdsdrift 248, Pixley Ka Seme District Municipality, Northern Cape Province.

**Matenga, E. 2018.** Phase I Heritage Impact Assessment (including Palaeontological Assessment) requested in terms of Section 38 of the National Heritage Resources Act No 25/1999 for Mining Permit and related infrastructural activities on a piece of the farm Longlands 350 situated in the Magisterial District of Barkly West, Northern Cape Province

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**Matenga, E. 2016.** Phase I Heritage Impact Assessment (including Palaeontological Assessment) requested in terms of Section 38 of the National Heritage Resources Act No 25/1999 for the Proposed Mine Prospecting on a Portion of the Remaining Extent of the Farm 84 & Portion of farm 393, Barkly West District, Northern Cape Province.

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Act No 25/1999 for the Proposed Mine Prospecting on a Portion of Farm 393, Barkly West District, Northern Cape Province.

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### **Website**

The Barkly West & Vaal River Diggings. Found at: <http://www.on-the-rand.co.uk/Diamond%20Grounds/Barkly%20West.htm> Consulted October 2017.

## **10. ACKNOWLEDGEMENTS**

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