

**HERITAGE IMPACT ASSESSMENT IN TERMS OF SECTION 38 OF THE
NATIONAL HERITAGE RESOURCES ACT (NO 25/1999) FOR PROPOSED
ESTABLISHMENT OF A PETROLEUM FILLING STATION AND ASSOCIATED
FACILITIES AT GA MOLEPO MANKGAILE, MASHALANG EXTENSION 1 ON A
REMAINING PORTION OF THE FARM NOOITGEDACHT 189 KS WITHIN,
POLOKWANE LOCAL MUNICIPALITY, CAPRICORN DISTRICT MUNICIPALITY,
LIMPOPO PROVINCE**

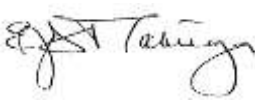
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DECLARATION OF INDEPENDENCE

AHSA (Pty) Ltd is an independent consultancy: I hereby declare that AHSA has 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 of the National Heritage Resources Act (No 25 of 1999).

DISCLAIMER

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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EXECUTIVE SUMMARY

1. This document is a Heritage Impact Assessment (HIA) prepared in terms of Section 38(8) of the National Heritage Resources Act (No 25 of 1999) for the establishment of a petroleum filling station and associated facilities at Mankgaile, Mashalang Extension 1, Ga-Molepo, on a Remaining Portion of the Farm Nooitgedacht 189 KS in the Polokwane Local Municipality, Limpopo Province. A ground survey was conducted on Saturday 16 February 2020 and a ground inspection was undertaken

2. The following were the findings of the study:
3. *Stone Age*
A single stone artefact was found on the southern boundary of the property. This scraper tool may date to the Middle Stone Age (MSA) period between 250 000 yrs and 40 000 years BP. The find is of medium to low significance.

4. *The Iron Age*
No sites or relics dating to the Iron Age were recorded.

5. *Historic structures*
No structures or relics of historical significance were recorded.

6. *Burial grounds*
No graves or burial grounds were reported on the property.

7. *Aloes (Aloe ferox)*
A number of giant aloes grow on the property and on the ridge to the west of the property, which forms a western backdrop. Aloes have proven medicinal value for human and veterinary application. As such they have been part of the cultural landscape from the distant past. There is nothing to warrant their destruction as they are transplantable and they can be incorporated into the new landscape design.

9. *Ranking of findings*

6.	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.	0
2	Medium A	Substantial archaeological deposits, buildings protected under Section 34 of NHRA. 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.	2 (including aloes)
4	Low	Heritage sites which have been recorded, but considered of minor value relative to the proposed development.	0
		TOTAL	2

10. *Conclusions and recommendations*

The project may go ahead subject to a commitment made by the developer to protect the aloes. In the event that other heritage resources are discovered during site preparation the Provincial Heritage Resources Authority or SAHRA must be alerted immediately and an archaeologist or heritage expert called to attend.

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ABBREVIATIONS

CRM	Cultural Resources Management
CMP	Conservation Management Plan
COP	City of Polokwane
EIA	Environmental Impact Assessment
HIA	Heritage Impact Assessment
LSA	Late Stone Age
LIA	Later Iron Age
LIHRA	Limpopo Heritage Resources Authority
PHRA	Provincial Heritage Resources Authority
MSA	Middle Stone Age
NHRA	National Heritage Resources Act
NEMA	National Environmental Management Act
NTFP	Non-timber Forest Product
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”.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.

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.

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.

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 \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.

1. INTRODUCTION

This report is a Heritage Impact Assessment (HIA) prepared in terms of Section 38(8) of the National Heritage Resources Act (No 25 of 1999) for the establishment of a petroleum filling station and associated facilities at Mankgaile, Mashalang extension 1, Ga-Molepo, on a Remaining Portion of the Farm Nooitgedacht 189 KS in the Polokwane Local Municipality, Capricorn District, Limpopo Province. This entailed a site visit on Saturday 16 February 2020 and a ground inspection undertaken.

1.1. Nature of proposed development and potential impacts

Construction of a petroleum filling station entails the following:

- Ground preparation (grubbing);
- Excavations for the installation of underground fuel holding tanks;
- Construction of a shed with pump stalls and convenience shop;
- Associated facilities including office space and ablution;
- Construction of a paved forecourt with designated parking area; and
- Pavement of slip-off and slip-in roads connecting with the D4020 road.

Heritage resources that may occur in the footprint of the development are likely to be affected as a result of the associated physical works, while infrastructure on the surface also alters the character or landscape characteristics of the place.

2. LOCATIONAL DETAILS AND PHYSICAL SETTING

The proposed project is located on the farm Nooitgedacht 189 KS in Ga-Molepo Village:

Latitude	Longitude
23°59'58.48"S	29°46'52.08"E

The property is 21.5km from Mankweng (Turflop) situated on vacant land on the eastern foot of a ridge, on the western side of the surfaced road, D4020, offsetting south from the R71 road towards Chuenespoort and Lebowakgomo. The famous pilgrim precinct, Zion City at Moria, lies 7km to the north at the junction of the D4020

road and the R71 from Polokwane to Tzaneen. Ground dips gently east towards the Maphogodima River on which Ga-Molepo Dam 1km to the south was built. The river takes a southerly course breaching a mountain range before turning east to join the Olifants River. Hemmed by the foothills of the Drakensberg to the east and ridges to the west the terrain resembles a trough through which the Maphogodima River flows. The broken topography derives from a granite basement and associated metamorphic rocks. The surface is gravelly with grains of quartz. Vegetation is Karoo scrub dominated by acacia interspersed with other species including sickle bush (*Dichrostachys cinerea*). The giant aloe (*Aloe ferox*) is quite common in the vegetation mix.

In the lowland area, there are several settlement clusters or villages collectively called Ga-Molepo, viz Mangkaile to the north, Ga-Ramphere to the south and Mmamatshe to the east (Figures 1- 6).



Figure 1: Google Earth map showing location of the site and surrounding villages.



Fig 2. The site is on the eastern foot of a ridge which can be seen from the Google Earth map.



Figure 3: The giant aloe (*Aloe ferox*) is quite common in the area.



Figure 4: The ranging pole (2m) provides an indication of the height of the aloes.



Figure 5: View SE shows the Ga-Molepo Dam in the trough through which the Maphogodima River flows.



Figure 6: Gravelly surface, stones including quartz.

2. LEGAL FRAMEWORK

The nature and scale of the proposed development trigger a Heritage Impact Assessment as stipulated 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, powerline, 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 000m² 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 m² 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 also apply:

Section 34 of the NHRA protects all structures and features older than 60 years (section 34).

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

No person may, without a permit issued by the responsible heritage resources authority—

(a) destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;

(b) destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological 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 palaeontological material or object, or any meteorite; or

(d) bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment which assist in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.

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

3. APPROACH AND METHODOLOGY

3.1. Literature Survey

Desktop research was undertaken to understand the archaeological and historical context of the area. A literature review was critical to gaining an understanding the area in the context of South African cultural sequence and local ethno-histories. The internet was a bountiful source of information. Local development plans and master plans were studied to understand how they will interface with the project.

In May 2015 this author carried out a heritage impact survey for the establishment of an abattoir a few hundred metres from the present property:

Matenga, E. 2015. *Heritage Impact Assessment in terms of Section 38 of the National Heritage Resources Act No 25 of 1999 for the proposed establishment of an abattoir at Ga-Molepo (portion of farm Nooitgedacht 189ks), Polokwane local municipality, Capricorn District, Limpopo*. Foundation remains of buildings of a recent date (20th century) including stone terraces were considered of low significance.

3.2. Ground Survey

Conventional field methods of archaeological prospection were employed. The footprint of the proposed development being small at 2 ha walking surveys were undertaken and the ground examined for the occurrence of artifacts. A walking survey simply involved going out on foot and examining the ground surface in order to observe and record archaeological artifacts, features and activity areas.

3.3. Significance Ranking

The significance ranking shows perceived importance of a heritage resource to the community and potential for future development of the heritage. In this study, the heritage resources are not ranked in terms of Section 7 of NHRA as this is outside the scope of work. Nonetheless we also consider significance under General Principles (general criteria of defining the National Estate) as stated in Section 3 of the same Act.

	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.	
2	Medium A	Substantial archaeological deposits, buildings protected under Section 34 of NHRA. 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.	
		TOTAL	

4. ARCHAEOLOGICAL AND HISTORICAL CONTEXT

The cultural sequence in South Africa outlined below has been adopted from archaeology and ethno-history to provide a framework for the identification of heritage.

5.1. Appearance of Hominids

South Africa's human history and heritage span nearly 4 million years. It begins with the appearance of Hominids. Hominids emerged in what has been termed the proto-Stone Age era. Hominid sites and their fossil remains are largely confined to dolomite caves on the highveld in Gauteng, Limpopo and Northwest Provinces.² Hominid refers to primate species which are the immediate ancestors of man.

The Makapan's Mountain ranges which lie c. 80km southwest of Ga-Molepo is home to one of the better known hominid sites, the Makapan's Valley, featuring the genus *Australopithecus africanus* and preserved in limestone geology (Figure 7). This site

² Deacon, J. and N. Lancaster. 1986. *Later Quaternary Palaeo-environments of Southern Africa*. Oxford: Oxford University Press.

is inscribed on the UNESCO World Heritage list in a serial nomination with the Cradle of Human Kind and Taung. This proves a long storyline of human evolution beginning 4 million BP.

The preservation of hominid sites is a function of geology and in the South African experience these are almost always found in association with limestone deposits.



Fig 7. Historical Cave, Makapan's Valley (Photo, M.A Silidi, SAHRA 2002)

5.2. The Stone Age

The Stone Age dates back more than 1 million years and marks a more diagnostic appearance of the cultural sequence. It is divided into three epochs namely Early, Middle and Late Stone Ages. Stone and bone implements manifest the technology of the period and fall into distinct typologies indicating chronological development. Material evidence of human activities has been found in caves, rock-shelters and riverside sites, and very rarely seen in open country.³ The Late Stone Age saw the execution of paintings mostly in rock shelters and caves.

5.2.1. The Early Stone Age [1.4 million – 100 000 yrs BP]

³ <http://archaeology.about/od/bterms/g/bordercave.htm>

The Early Stone Age marks the earliest appearance of stone artefacts about 1.4 million years ago. Such tools bore a consistent shape such as the pear-shaped hand-axe, cleavers and core tools (Deacon & Deacon, 1999). These tools, which have been called Acheulian after a site in France, were probably used to butcher large animals such as elephants, rhinoceros and hippopotamus. Acheulian artefacts are usually found near sites where they were manufactured and thus in close proximity to the raw material or at butchering sites. The early hunters are classified as hominids meaning that they had not evolved to the present human form.

5.2.2. Middle Stone Age (MSA) [250 000 yrs – 30 000 yrs BP]

The Middle Stone Age (MSA), which appeared 250 000 years ago, 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. It is also believed that by then, humans had evolved significantly to become anatomically modern. Caves were used for shelter suggesting permanent or semi-permanent settlement. Furthermore there is archaeological evidence from some of the caves indicating that people had mastered the art of making fire. These were two remarkable steps in human cultural advancement.⁴

The Cave of Hearths, Hyena Mandible and Rainbow Cave in the Makapans Mountains have a remarkable Early Stone Age record.

5.2.3. Later Stone Age (LSA)[40 000 yrs to ca 2000 yrs BP]

By the beginning of the LSA, humans are classified as *Homo sapiens* which refer to the modern physical form and thinking capabilities. Several behavioural traits are exhibited, such as rock art and purposeful burials with ornaments, became a regular practice. The practitioners of the rock art are definitely the ancestors of the San and sites abound in the whole of Southern Africa. LSA technology is characterised by microlithic scrapers and segments made from very fine-grained rock. Spear hunting

⁴ Deacon, J & H. Deacon. 1999. *Human Beginnings in South Africa*. Cape Town: David Philip.

continued, but LSA people also hunted small game with bows and poisoned arrows. Because of poor preservation, open sites become of less value compared to rock shelters.

5.3. The Iron Age Culture [ca. 2000 years BP]

The Iron Age culture supplanted the Stone Age at least 2000 years ago, bringing about farming as the principal mode of subsistence and the use of several metals and pottery. A sudden synchronized appearance of these technologies is seen as occurring in South Africa, indeed in the whole region of Eastern and Southern Africa to suggest a rapid movement of speakers of Bantu languages from north of the continent to the south.⁵ This concept of rapid migration is no longer tenable and considering that these communities are indigenous to Africa, a gradual expansion of population and settlement rather than a migration in the strict sense sound more plausible (Figure 8). Pottery styles characterize and identify archaeological traditions within the broad Iron-using culture and to further isolate geographical variations, which have been called *facies*.⁶



Figure 8: Spread of the Urewe Tradition in Southern Africa (Huffman 2007: 122)

⁵ Phillipson, D. W. 2005. *African Archaeology*. Cambridge: University of Cambridge Press: 249.

⁶ 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

5.3.1. *Early Iron Age*

Metal working represented a new technology not found among the Stone Age hunters. Iron using farmers practiced agriculture and kept domestic animals such as cattle, sheep, goat and chicken amongst others. There is increasing evidence that sheep and cattle might have moved into South Africa much earlier than the Iron Age.

Evidence of Early Iron Age settlement has been obtained at the Ficus Cave (550 AD), in the Makapan's Mountains. Occupation continued into the Later Iron Age (1560 AD) on the mountain slopes as evidenced by terracing and occupation debris-potsherds, grindstones, hammer stones and relics of iron smelting operations, including ore, slag and fragments of *tuyeres* (blowpipes).

5.3.2. *The Later Iron Age and the Northern Sotho/Tswana*

The Later Iron Age in South Africa evolved from the Early Iron Age around the beginning of the 2nd millennium AD. The two cultural streams of the EIA seem to converge in this area. Subsequently, however, the Western stream appears to have fizzled out and the Eland-Ikon facies⁷ of the Eastern Stream predominated. This evolved into the Madikwe facies around the 16th century (Huffman 2007: 183, 199, 227). In historical terms the archaeological scenario which has been outlined above is prelude to the emergence of historical Northern Sotho and Tswana groups in the area.

5.4. **The Northern Sotho**

The northern Sotho settled in the belt from Lephalale to Pharaborwa apparently descending from the Later Iron Age, and the two must be seen as a single cultural continuum.

5.5. **Nguni Settlement, 17th/18 Centuries**

Historical and oral records attest to migration streams of Nguni speakers, the ancestors of the Northern Ndebele, from the southeast into this part of the highveld from the 17th century. Subsequently major shifts were triggered by the Mfecane upheavals in Zululand in the 19th century. Contemporary oral legends profiled Langa

⁷ A facies is a geographical area presenting a particular pottery tradition.

and Musi as founders of the Northern and Southern Ndebele respectively (Huffman 2007: 439-441).

5.6. The European Contact Period

The northward expansion of people of European descent, called the Great Trek, is one of the major epochs in South African history. The influx sparked conflicts with African polities. In one of these encounters on the foot of the Waterberg Mountains (80 km SW of the study area), King Mokopane of the Kekana routed an Afrikaner party led by Hermanus Pretorius in September 1854, an incident which is commemorated at Mooddrift (meaning Murder Ford), a monument erected at the site 6km south of Mokopane. The site is a Provincial Heritage Site (Grade II).

Between 25 October and 21 November of the same year, the Afrikaners laid a vengeful siege against Mokopane and his troops, who had retreated into a cave on the northern face of the Makapan's Mountains. At the site now called Historic Cave or Makapansgat, the Kekana people died in large numbers as a result of the siege. The site is a National Monument.

In the early stages of the siege of Makapans one of the Afrikaner commando leaders Piet Potgieter was killed. His body was only retrieved later by Paul Kruger (later President of the Transvaal Republic).⁸ In his honour the town of Potgietersrus (now Mokopane) was named, located 15km from Makapans Valley.

In another conflict in the area two decades later, the British attacked the Pedi capital Tjate east of Ga-Molepo and took the king Sekhukhune prisoner to Pretoria. He was later released by the Boers in 1881 when they regained sovereignty from the British. Sekhukhune was assassinated in 1882 in a plot masterminded by his rival Mampuru.

5.7. African Independent Churches: Zion City at Mount Moria

The site of the proposed filling station is 7km by road southeast of Zion City at Moria (Fig 9). Moria is the headquarters of the Zion Christian Church (ZCC), the largest Independent church in South Africa, indeed in the whole of Southern Africa. The

⁸ <http://www.sahistory.org.za/dated-event/makapane039s-cave-under-siege>

Church is one of the sects, so called African Independent Churches, which evolved from the charisma of their founders. The Church dates back to 1910, splitting from the Scottish Free Church under the leadership of Engenas Barnabas Lekganyane, a native of Mamabolo Village outside Polokwane.⁹ The church is tucked on the eastern foot of a hill (Moria); its symbol the Star of David erected in white painted stone on the hill slope visible from a long distance from the site. African Independent churches chart a syncretic ideology based on a mixture of Christian precepts and African cultural traditions. In this respect ZCC is quite typical, characterised by the emphasis it places on faith healing, purification rites, dancing, night communion, river baptism, the holy spirit, taboos and prophesying.

ZCC has two congregations; this notwithstanding they work closely together with a total membership of c. 8 million, mostly from South Africa, but also from neighbouring countries. The mass biennial pilgrimages in April and September draw congregants from all major cities of South Africa, causing traffic jams especially on the N1 highway from Johannesburg to Polokwane and the access (R71) between Moria and Polokwane.¹⁰

Dramatic transformation of the church started in 1948 after the death of Barnabas and takeover by his son, Edward, who was highly educated. During his time, a male society was established within the Church, the Mokhukhu. Edward also promoted the pilgrimages which have become the brand image of the church.

The visit to Moria on 15 April 1994 by President-to-be Mr. Nelson Mandela, F. W. De Klerk, Mangosuthu Buthelezi and Pik Botha is remembered as one of the epic pilgrimages.¹¹ Since then other leaders including former President Mr. Jacob Zuma and sitting President Mr Ramaphosa have also visited the famous shrine.

⁹ <http://prominentpeople.co.za/lekganyane.aspx>

¹⁰ <http://www.sa-venues.com/attractions/limpopo/zion-city.htm>

¹¹ SABC News Friday 3 April 2015 16:23



Figure 9: View of Moria from the east.

The above sets the archaeological and historical context for studying the archaeology and heritage of the project area.

6. FINDINGS OF SURVEY

The following were the findings of the study:

6.1. Stone Age

A single stone artefact was found on the southern boundary of the property. This scraper tool dates to the Middle Stone Age between 250 000 and 40 000 years BP. This find is considered of medium to low significance.

SITE NO	COORDINATES		PERIOD
GAMO1	24° 0'4.03"S	29°46'46.06"E	MSA



DESCRIPTION: Eastern foot of ridge, close to the southern limits of the property.
A single MSA scraper.

HERITAGE SIGNIFICANCE	Evidence of hunter-gatherer activities during the MSA/LSA
MITIGATION	No further action required.

6.2. The Iron Age

No sites or relics dating to the Iron Age were recorded.

6.3. Historic structures

No structures or relics of historical significance were recorded.

6.4. Burial grounds

No graves or burial grounds were reported on the property.

6.5. Aloes (*Aloe ferox*)

A number of giant aloes grow on the property and on the ridge which forms the western backdrop of the site. Aloes have a proven medicinal value for human and veterinary application. As such they have been part of the cultural landscape from the distant past. There is nothing to warrant their destruction as they are easily transplantable and they can be incorporated into the new landscape design.

6.6. Ranking of findings

7.	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.	0
2	Medium A	Substantial archaeological deposits, buildings protected under Section 34 of NHRA. 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.	2 (including aloes)
4	Low	Heritage sites which have been recorded, but considered of minor value relative to the proposed development.	0
		TOTAL	2

6.7. Assessment of Impacts in terms of 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—

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

	<i>organisation of importance in the history of South Africa</i>	
(i)	<i>Sites of significance relating to the history of slavery in South Africa.</i>	None

6.8. Assessment of Impacts in terms of Section 38 (3) of NHRA

This Section demonstrates that the study has fulfilled the requirements of Section 38(3) of the National Heritage Resources Act. Section 38(3) requires that:

(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

No sites were found in the footprint of the proposed development. The stone age artefact was found south of the development area. Giant aloes commonly grow on and around the property.

(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

The significance are considered of medium to low significance.

(c) an assessment of the impact of the development on such heritage resources

Aloes may be destroyed; transplantation has been recommended as mitigation.

(d) 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

The establishment of a second filling station in the area is necessary in view of the increased volume of traffic on the area during pilgrimage events at Moria in April, September and December. Development potential leverages on attraction of the shrine at Moria.

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

The aloes must be transplanted and opportunity exists to incorporate them in garden landscape around the filling station.

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

It is standard precaution that should heritage resources be found during the construction phase, operations will be halted and a heritage specialist called to attend.

6.9. Risk Assessment of the findings

EVALUATION CRITERIA	RISK ASSESSMENT
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 National Heritage Resources Act No. 25 (1999)
Stage/Phase	Site preparation and construction phases
Extent of Impact	Ground clearing (grubbing) and foundation trenching can result in damage and destruction of 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	Transplantation of aloes where they are affected by the development. 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.

7. CONCLUSIONS AND RECOMMENDATIONS

The project may therefore go ahead subject to the developer making a commitment to protect the giant aloes on the property. In the event that other heritage resources are discovered during site preparation the Provincial Heritage Resources Authority or SAHRA must be alerted immediately and an archaeologist or heritage expert called to attend.

8. REFERENCES

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Legislation and Policy

National Heritage Resources Act (No 25 of 1999)

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