

**Prepared for:**

**JMA CONSULTING (PTY) LTD**

**SASOL MINING SECUNDA**

**A (REVISED) PHASE I HERITAGE IMPACT ASSESSMENT (HIA)  
STUDY FOR THE SASOL SHONDONI CONVEYER AMENDMENT  
PROJECT ON THE EASTERN HIGHVELD IN THE MPUMALANGA  
PROVINCE**

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	<b>Executive Summary</b>	<b>2</b>
<b>1</b>	<b>INTRODUCTION</b>	<b>7</b>
<b>2</b>	<b>TERMS OF REFERENCE</b>	<b>9</b>
<b>3</b>	<b>METHODOLOGY</b>	<b>10</b>
3.1	Field survey	10
4.2	Databases, literature survey and maps	11
4.3	Assumptions and limitations	11
<b>4</b>	<b>THE SASOL PROJECT AREA</b>	<b>13</b>
4.1	Location	13
4.2	The Sasol Project	14
4.3	Within a cultural landscape	14
<b>5</b>	<b>THE PHASE I HERITAGE IMPACT ASSESSMENT</b>	<b>15</b>
5.1	Types and ranges of heritage resources	15
5.2	Historical remains	17
5.3	Graveyards	22
5.3.1	Graveyard 01	22
5.3.2	Graveyard 02	23
5.3.3	Graveyard 03	24
5.3.4	Graveyard 04	25
5.3.4	Graveyard 05	25
<b>6</b>	<b>THE SIGNIFICANCE, POSSIBLE IMPACT ON AND MITIGATION OF THE HERITAGE RESOURCES</b>	<b>28</b>
6.1	The significance of the heritage resources	28
6.1.1	The historical remains	28
6.1.2	The graveyards	28
6.2	Possible impact on and mitigation of the heritage resources	28

6.2.1	The historical remains	28
6.2.2	The graveyards	28
<b>7</b>	<b>CONCLUSION AND RECOMMENDATIONS</b>	<b>31</b>
<b>8</b>	<b>SELECT BIBLIOGRAPHY</b>	<b>34</b>

## EXECUTIVE SUMMARY

The revised Phase I Heritage Impact Assessment (HIA) study for the Sasol Shondoni Conveyor Amendment on the Eastern Highveld in the Mpumalanga Province of South Africa was done according to Section 38 of the National Heritage Resources Act (No 25 of 1999). This project is here referred to as the Sasol Project and the footprint of the area to be affected by the project was referred to as the Sasol Project Area.

The aims with the Phase I HIA study were the following:

- To establish whether any of the types and ranges of heritage resources as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999) (see Box 1) do occur within the perimeters of the Sasol Project Area.
- To determine the significance of these heritage resources and whether any of these types and ranges of heritage resources will be affected by the Sasol Project, and if so, to determine mitigation measures for those heritage resources that will be affected by the Sasol Project.

The Phase I Heritage Impact Assessment (HIA) for the Sasol Project Area revealed the following types and ranges of heritage resources in and near the Sasol Project Area as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999), namely:

- Historical remains consisting of houses and cattle enclosures.
- Informal graveyards.

These heritage resources were geo-referenced and mapped (Figures 1-2, Tables 1-2).

(No archaeological [pre-historical] remains were recorded. Neither was any paleontological study conducted by this specialist).

### **The significance of the heritage resources**

Historical remains consisting of dwellings and cattle enclosures as well as GY01, GY04 and GY05 will be negatively affected by the Sasol Project. The significance of these heritage resources is indicated whilst mitigation measures are outlined for those heritage resources which will be affected by the Sasol Project.

### **The historical remains**

The historical remains (dwellings, enclosures and graveyards) constitute a cultural landscape along the higher eastern banks of the Grootspuit due to the contextual and temporary connection between these remains. The dwellings, cattle enclosures and graveyards therefore are spatially, culturally and functional interrelated with each other and supports each other's meaning and existence. This landscape is also historical in nature as it approaches sixty years of age or may even be older.

Cultural landscapes are part of archaeological and historical remains and are protected by Section 38 of the National Heritage Resources Act (Act No 25 of 1999).

The cultural landscape has low to medium significance when considering criteria such as the following (Table 1):

- Historical remains such as those recorded in the Sasol Project Area (and elsewhere on the Eastern Highveld) are rapidly disappearing as a result of development and modernisation.
- The historical remains have research (scientific) value.
- The historical remains can add to our knowledge regarding human life ways and traditions on the Eastern Highveld during the turn of the nineteenth century.

### **The graveyards**

All graveyards and graves can be considered to be of high significance and are protected by various laws (Table 2). Legislation with regard to graves includes Section 36 of the National Heritage Resources Act (Act No 25 of 1999) whenever graves are older than sixty years.

The act also distinguishes various categories of graves and burial grounds. Other legislation with regard to graves includes those which apply when graves are exhumed and relocated, namely the Ordinance on Exhumations (No 12 of 1980) and the Human Tissues Act (No 65 of 1983 as amended).

### **Possible impact on and mitigation of the heritage resources**

The historical remains as well as GY01, GY04 and GY05 will be impacted by the proposed Sasol Project (conveyer belt). Mitigation measures therefore are outlined for these heritage resources.

### **The historical remains**

None of the historical remains associated with the cultural landscape may be negatively affected by the Sasol Project *prior* to their investigation by an archaeologist accredited with the South African Heritage Resources Agency (SAHRA). After these remains have been documented and a report has been furnished to SAHRA the developer (SASOL) has to acquire a demolishing permit from SAHRA before the cultural landscape may be affected as a result of the Sasol Project.

### **The graveyards**

Graveyards and graves can be mitigated by means of exhumation and relocation. The exhumation of human remains and the relocation of graveyards are regulated by various laws, regulations and administrative procedures. This task is undertaken by forensic archaeologists or by reputed undertakers who are acquainted with all the administrative procedures and relevant legislation that have to be adhered to whenever human remains are exhumed and relocated. This process also includes social consultation with a 60 days statutory notice period for graves older than sixty years. Permission for the exhumation and relocation of human remains have to be obtained from the descendants of the deceased (if known), the National Department of Health, the Provincial Department of Health, the Premier of the Province and the local police.

### **General**

Although due consideration was given to the observing and documenting of all heritage resources in the Sasol Project Area some resources may not have been detected due to various reasons (occurring beneath the surface, unmarked, inconspicuous or eroded nature, covered by vegetation, human failure to recognise, etc.).

If any heritage resources of significance is exposed during the Sasol Project the South African Heritage Resources Authority (SAHRA) should be notified immediately, all development activities must be stopped and an archaeologist accredited with the Association for Southern African Professional Archaeologist (ASAPA) should be notify in order to determine appropriate mitigation measures for the discovered finds.

## **1 INTRODUCTION**

This document contains the report on a Phase I Heritage Impact Assessment (HIA) study which was done for the Sasol Shondoni Conveyer Amendment Project on the Eastern Highveld in the Mpumalanga Province.

Previous heritage surveys conducted for Sasol Mining indicated that the most common types and ranges of heritage resources on the Eastern Highveld in the Mpumalanga Province include historical farmstead complexes associated with formal and informal graveyards. Stone walled settlements dating from the Late Iron Age and Historical Period also occur but are limited to areas where low, dolerite kopjes and randjes exist. These topographical features are generally scarce in the mining areas where Sasol is operational.

However, various types and ranges of heritage resources that qualify as part of South Africa's 'national estate' as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999) do occur across the Mpumalanga Province (see Box 1, next page).

### **Box 1: Types and ranges of heritage resources as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999).**

The National Heritage Resources Act (Act 25 of 1999, Section 3) outlines the following types and ranges of heritage resources that qualify as part of the national estate:

- a. Places, buildings structures and equipment of cultural significance;
- b. Places to which oral traditions are attached or which are associated with living heritage;
- c. Historical settlements and townscapes;
- d. Landscapes and natural features of cultural significance;
- e. Geological sites of scientific or cultural importance;
- f. Archaeological and palaeontological sites;
- g. Graves and burial grounds including-
  - i. Ancestral graves;
  - ii. Royal graves and graves of traditional leaders;
  - iii. Graves of victims of conflict;
  - iv. Graves of individuals designated by the Minister by notice in the Gazette;
  - v. Historical graves and cemeteries; and
  - vi. Other human remains which are not covered in terms of the Human Tissue Act (Act 65 of 1983);
- h. Sites of significance relating to the history of slavery in South Africa;
- i. Moveable objects, including -
  - i. Objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects, material, meteorites and rare geological specimens;
  - ii. Objects to which oral traditions are attached or which are associated with living heritage;
  - iii. Ethnographic art and objects;
  - iv. Military objects;
  - v. Objects of decorative or fine art;
  - vi. Objects of scientific or technological interest; and
  - vii. Books, records, documents, photographs, positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act (Act 43 of 1996).

The National Heritage Resources Act (Act 25 of 1999, Sec 3) also distinguishes nine criteria for a place and/or object to qualify as 'part of the national estate if they have cultural significance or other special value ...'. These criteria are the following:

- a. Its importance in the community, or pattern of South Africa's history;
- b. Its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;
- c. Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
- d. Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects;
- e. Its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
- f. Its importance in demonstrating a high degree of creative or technical achievement at a particular period;
- g. Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;
- 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; and/or
- i. Its significance relating to the history of slavery in South Africa.

## **2 TERMS OF REFERENCE**

The Sasol Shondoni Conveyor Amendment Project may have an impact on any of the types and ranges of heritage resources as outlined in Section 38 of the National Heritage Resources Act (No 25 of 1999). Therefore, JMA Associates (Pty) Ltd who is responsible for the compiling the Environmental Impact Assessment report for the Sasol Shondoni Conveyor Amendment Project, commissioned the author to undertake a Phase I HIA study for this project.

The aims with the Phase I HIA were the following:

- To establish whether any of the types and ranges of heritage resources as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999) (see Box 1) (except paleontological remains) do occur within the perimeters of the Sasol Project Area.
- To determine the significance of these heritage resources and whether any of these types and ranges of heritage resources will be affected by the Sasol Project, and if so, to determine mitigation measures for those heritage resources that will be affected by the Sasol Project.

### **3 METHODOLOGY**

This Phase I HIA study was conducted by means of the following:

- Surveying the proposed Sasol Project Area with a vehicle and selected spots on foot.
- Briefly surveying literature relating to the pre-historical and historical context of the Sasol Project Area.
- Consulting maps of the proposed Sasol Project Area.
- Consulting archaeological (heritage) data bases.
- Synthesising all information obtained from the data bases, fieldwork, maps and literature survey into this report.

#### **3.1 Field survey**

The field survey involved covering the proposed conveyer routes with a vehicle where access was available. Selected stretches and spots along the conveyer route indicated by ecological markers such as cleared spots in the vegetation; alien vegetation (mostly intruder species); surface features (soil [mud] dumps, protrusions, depressions, etc.), were surveyed on foot. Heritage resources such as cattle enclosures constructed with stone walls were obvious and clearly noticeable even where tall grass occurred.

The total length of the surveyor corridor was covered. During the onset of the project an initial survey was undertaken which involved personnel from Sasol, JMA Associates, specialists covering various disciplines of study for the project and the archaeologist (author). Two subsequent surveys were done by the archaeologist along tracks of land most likely to harbour the presence of heritage resources, namely the strip of land covered with Blue Gum trees adjacent to the R547 and the piece of land wedged between the Grootspuit(west) and a tailings dump and the West Shaft (east).

### **3.2 Databases, literature survey and maps**

Databases kept and maintained at institutions such as the Provincial Heritage Resources Agency (PHRA), the Archaeological Data Recording Centre at the National Flagship Institute (Museum Africa) in Pretoria and SAHRA's national archive (SAHRIS) were consulted to determine whether any heritage resources of significance has been identified during earlier heritage surveys in or near the Sasol Project Area.

The author is acquainted with the Sasol Project Area at large as he had done several heritage impact assessment studies near the proposed project area (see Part 8, 'Select Bibliography').

Literature relating to the pre-historical and the historical unfolding of the Eastern Highveld where the Sasol Project Area is located was reviewed (see Part 5, 'Contextualising the Sasol Project Area').

It is important to contextualise the pre-historical and historical background of the Sasol Project Area in order to comprehend the identity and meaning of heritage sites in and near the project area.

In addition, the Sasol Project Area was studied by means of 1:50 000 topographical maps and the 1:250 000 map on which it appears.

### **3.3 Assumptions and limitations**

Although due consideration was given to the observing and documenting of all heritage resources in the Sasol Project Area some resources may not have been detected due to various reasons (occurring beneath the surface, unmarked, inconspicuous or eroded nature, covered by vegetation, human failure to recognise, etc.).

If any heritage resources of significance is exposed during the Sasol Project the South African Heritage Resources Authority (SAHRA) should be notified

immediately, all development activities must be stopped and an archaeologist accredited with the Association for Southern African Professional Archaeologist (ASAPA) should be notified in order to determine appropriate mitigation measures for the discovered finds. This may include obtaining the necessary authorisation (permits) from SAHRA to conduct the mitigation measures.

This heritage study did not provide for any paleontological study of the Sasol Project Area.

## **4 THE SASOL PROJECT AREA**

### **4.1 Location**

Sasol Mining's mine lease area incorporates a vast track of land on the Eastern Highveld in the Mpumalanga Province of South Africa. The mine lease area is demarcated in various mining areas such as the Middelbult, Brandspruit, Twistdraai and Bosjesspruit Mining Areas which are located to the south of Leandra and Kinross and which stretches towards Balfour and Belfast in the south; the Block A (North) and Block B (South) Mining Areas which are located further to the west incorporating the village of VAL and which stretches towards Greylingstad further to the south as well as Sasol's Block 8 Mining Area which incorporates the Springbokdraai Reserves, Leeuwpan Reserves and the Northern Reserves.

This report focuses on the conveyer route for the Shondoni Project which is located in Sasol's Middelbult Mining Area. The proposed conveyer route is referred to as the Sasol Project Area. The proposed conveyer route runs across an undulating piece of veldt which incorporates agricultural fields in the north and stretches with pristine grass veldt in the south. The area has been transformed as a result of town and mine development. The towns of Leandra and Kinross are located in the north, the village of Brendan and the township of Embahleni towards the central part of the Sasol Project Area and the Sasol Secunda Plant in the south. Outstretched grass veldt with patches of agricultural fields occurs towards the southern part of the Sasol Project Area.

Few trees occur in the Sasol Project Area. Those that do occur are exotics such as Blue Gum lots, poplar-groves on the banks of streams and Oak trees which are usually located near historical farm homesteads. Most of these trees are anthropogenic as they have been introduced by human activities in the area in the past.

The Sasol Project Area is known for the production of agricultural crops such as maize, wheat, sorghum, dairy, potatoes and other vegetables. Cattle and sheep ranching also make a significant contribution to the local economy. Coal, gold and silica mines also occur in the area.

## **4.2 The Sasol Project**

Sasol Mining operates a number of underground coal mines in the Secunda Area. Middelbult Colliery represents one of these mines and has been in operation since 1981. During its existence Middelbult Colliery has gone through several expansions.

The original conveyor alignment crossed the Waterval River. The river channel, together with its well defined floodplain and wetland systems, was assessed as one of the major environmental risks associated with the original (approved) conveyor alignment and required extensive design, management and monitoring measures. This entire river crossing and its associated environmental risk has now been removed due to the fact that the new alignment will run north of, and parallel to, the Waterval River. The new alignment therefore represents a much more favourable environmental option.

In order to support the EIA Amendment Application, DEDET required additional studies on aspects related to Noise, Wetlands and Heritage, as well as additional Public Consultation with the land owners and directly affected parties. The baseline heritage survey which was done for the conveyer route (and the Sasol Block 8 reserves) (Pistorius 2013) is thus followed by this heritage impact assessment study for the amended conveyer alignment.

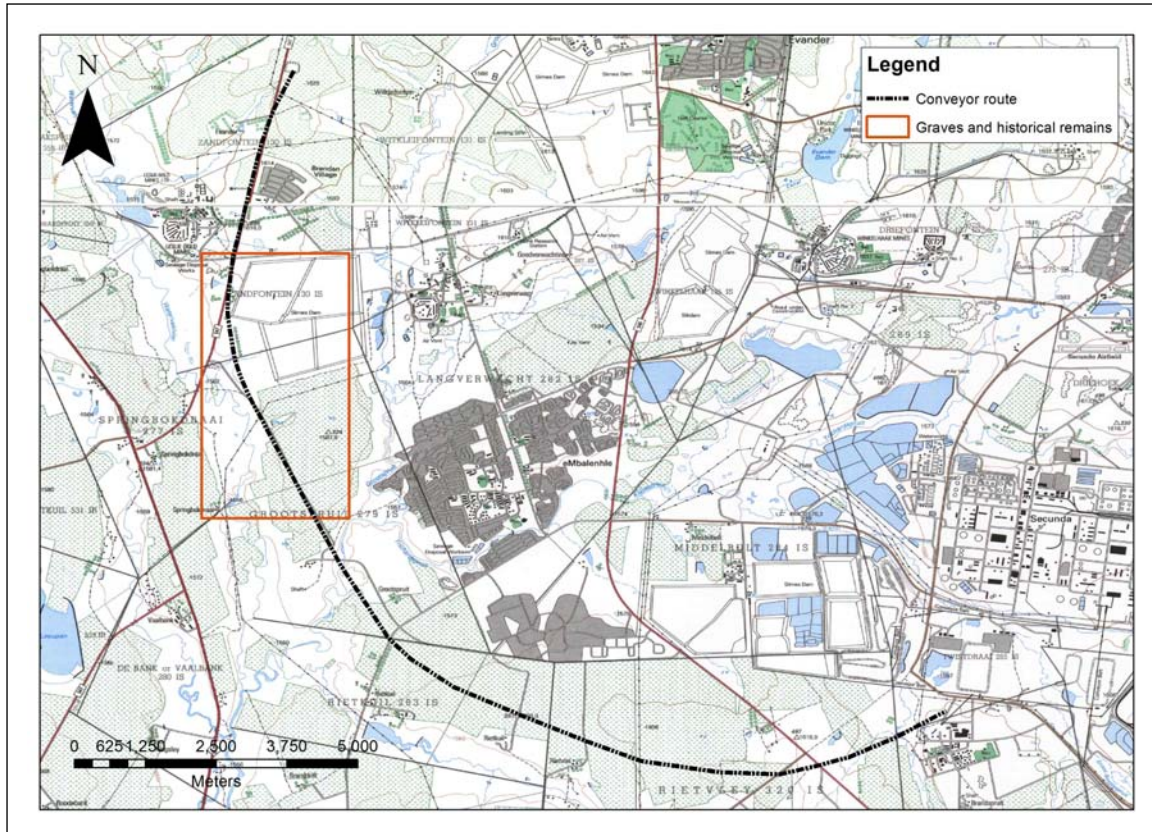
## **4.3 Within a cultural landscape**

The Sasol Project Area is located in the midst of a cultural landscape that is marked by heritage remains dating from the pre-historical into the historical (colonial) period. Stone Age sites, Iron Age sites and colonial remains therefore do occur in the Eastern Highveld (see Part 8 'Select Bibliography').

The archaeological and historical significance of this cultural landscape was described and outlined in the baseline heritage report which was done for Sasol's Block 8 Reserves and for Sasol's Shondoni Project, namely:

- 'Pistorius, J.C.C. 2013. A (revised) baseline heritage study for Sasol Mining's proposed Shondoni Project and for the Block 8 Reserves on the Eastern

Highveld in the Mpumalanga Province of South Africa. Unpublished report prepared for JMA Consulting (Pty) Ltd and Sasol Mining'.



**Figure 1- The Sasol Project Area in the Middelbult Mining Area with the proposed conveyor route (black dotted line) running from the Shondoni Shaft (north) to the Secunda Plant (south-east).**

The orange-coloured demarcated block shows where the densest concentration of heritage resources (historical remains and graveyards) occurred (above).

## **5 THE PHASE I HERITAGE IMPACT ASSESSMENT**

### **5.1 Types and ranges of heritage resources**

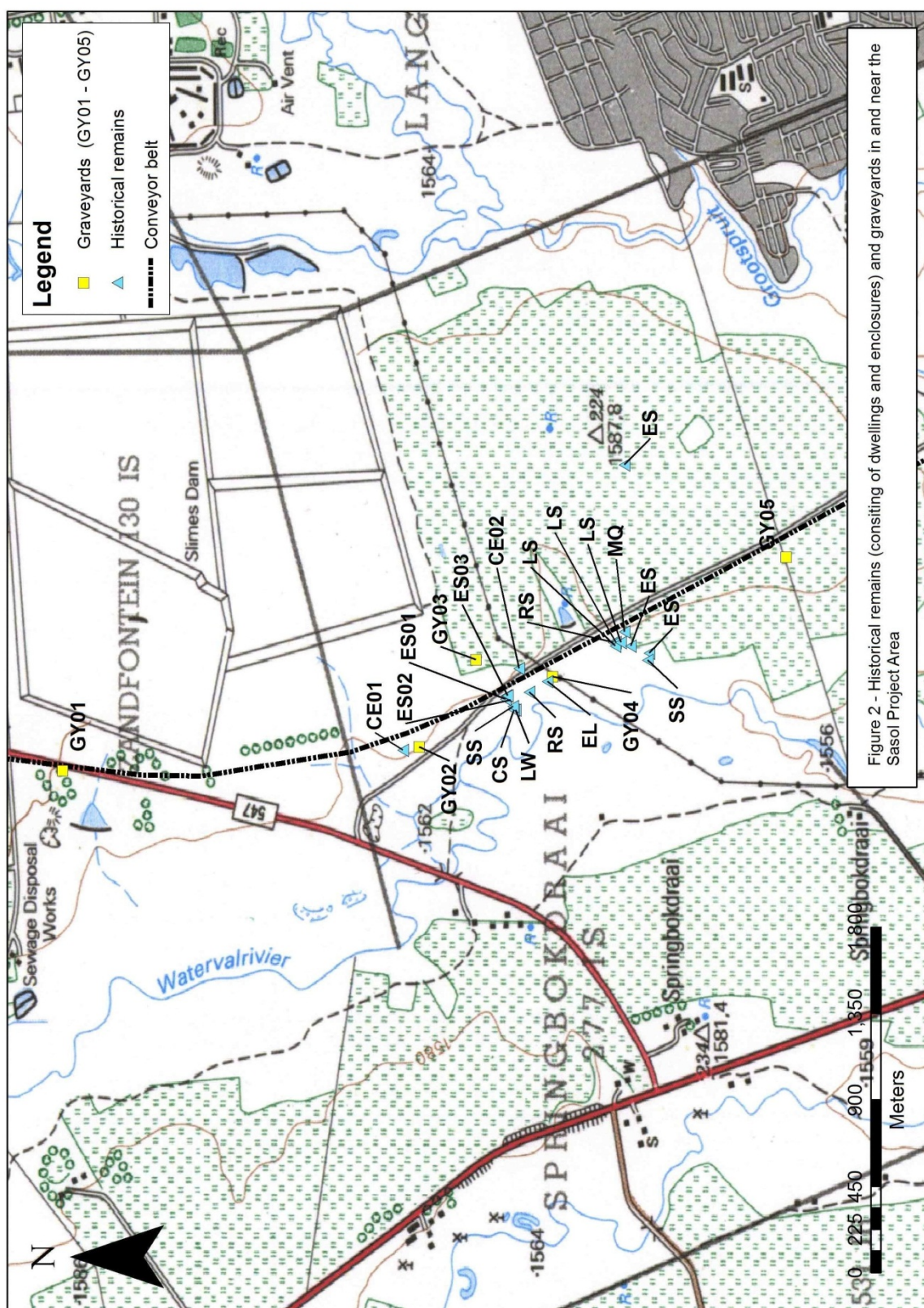
The Phase I Heritage Impact Assessment (HIA) for the Sasol Project Area revealed the following types and ranges of heritage resources in and near the Sasol Project Area as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999), namely:

- Historical remains consisting of houses and cattle enclosures.
- Informal graveyards.

(No archaeological [pre-historical] remains were recorded. Neither was any paleontological study conducted by this specialist).

These heritage resources were geo-referenced and mapped (Figures 1-2, Tables 1-2).

The significance of the heritage resources is indicated. Mitigation measures are outlined for those heritage resources which may be affected by the Sasol Project.



## 5.2 Historical remains

Historical remains consisting of houses and cattle enclosures occur on Grootspuit 279IS in and near the Sasol Project Area. These remains occur in an area to the east of the Grootspuit and comprise the remains of dwellings that were built with stone, mixtures of stone and mud and some dwellings that were mainly constructed with mud. The mud dwellings have largely disintegrated and little of their remains can still be observed. Shallow holes or quarries from where some of the mud was quarried to construct the dwellings also occur. Rectangular enclosures constructed with stone in which cattle were penned were constructed in close proximity of the remains of the houses.

These remains probably date from the last decades of the nineteenth century and/or from the early twentieth century and were probably occupied well into the first half of the twentieth century.



**Figure 3- One of several cattle enclosures built with dolerite stone in the Sasol Project Area. Two of these enclosures are located on the high ridge above the Grootspuit. Both structures were constructed with dolerite stone and are rectangular in ground plan. These two enclosures (CE01, CE02) are respectively associated with GY02 and GY03 (above).**



**Figures 4 & 5- A long stone wall on the banks of the Grootspuit comprises part of an enclosure in which cattle were penned close to the water (above). The remains of mud dwellings occur on higher ground away from the Grootspuit (above and below).**





**Figures 6&7- Hollows or shallow quarries where mud was mined and used in conjunction with stone to construct dwellings (above). A rectangular shaped cattle enclosure constructed with stone (below).**



<b>Historical remains</b>	<b>Coordinates</b>	<b>Significance</b>
CE01. Cattle enclosure	26° 31.636' 29° 02.027'	<b>Low-Med</b>
CE02. Cattle enclosure	26° 31.962' 29° 02.257'	<b>Low-Med</b>
LW. Long wall constructed with dolerite. Part of cattle enclosure next to the river	26° 31.952' 29° 02.143'	<b>Low-Med</b>
CS. Circular stone structure. Possible dwelling	26° 31.948' 29° 02.147'	<b>Low-Med</b>
SS. Square small stone and mud structure. Possible dwelling	26° 31.946' 29° 02.159'	<b>Low-Med</b>
ES01. Elongated structure with several rooms which is part of an extended dwelling	26° 31.925' 29° 02.176'	<b>Low-Med</b>
ES02. Elongated structure with several rooms. Extended dwelling	26° 31.927' 29° 02.186'	<b>Low-Med</b>
ES03. Elongated structure. Extended dwelling	26° 31.930' 29° 02.181'	<b>Low-Med</b>
RS. Rectangular structure. Cattle enclosure.	26° 31.991' 29° 02.192'	<b>Low-Med</b>
EL. Small elongated structure. Possible dwelling	26° 32.042' 29° 02.225'	<b>Low-Med</b>
RS. Dwelling with two rooms, one constructed with stone and the second with mud. Possible dwelling	26° 32.228' 29° 02.331'	<b>Low-Med</b>
LS. Large structure constructed with mud and stone. Large dwelling?	26° 32.235' 29° 02.332'	<b>Low-Med</b>
LS Large structure with unidentifiable features. Possible dwelling	26° 32.233' 29° 02.329'	<b>Low-Med</b>
LS. Large structure with unidentifiable features. Possible dwelling	26° 32.249' 29° 02.334'	<b>Low-Med</b>
MQ. Hollows from where mud where quarried to construct dwellings	26° 32.259' 29° 02.364'	<b>Low-Med</b>
ES. Elongated structure with unidentifiable features. Possible dwelling	26° 32.277' 29° 02.328'	<b>Low-Med</b>
ES. Elongated structure with unidentifiable features. Possible dwelling	26° 32.329' 29° 02.307'	<b>Low-Med</b>
SS. Small structure constructed with stone	26° 32.325' 29° 02.285'	<b>Low-Med</b>
ES. Large elongated structure constructed with dolerite	26° 32.259' 29° 02.831'	<b>Low-Med</b>

**Table 1- Coordinates and significance rating for historical remains in and near the Sasol Project Area (above).**

### 5.3 Graveyards

The following graveyards were observed in and near the Sasol Project Area:

#### 5.3.1 Graveyard 01

GY01 is located in a Blue Gum plantation on Zandfontein 130IS near the western shoulder of the road that runs to Kinross further to the north (R547).

It holds the remains of at least eleven individuals. All the graves are covered with piles of stone. Only one of the graves is fitted with a granite headstone with the following inscription:

- 'Maria Mahlangu 31-12-1974'

GY01 is probably older than sixty years considering the appearance of the graves. GY01 will be affected by the Sasol Project.



**Figure 8- GY01 is located in a Blue Gum bush and holds at least eleven graves, one of which is fitted with a granite head stone (above).**

### **5.3.2 Graveyard 02**

GY02 is situated on a high ridge away from the Grootspuit on the farm Grootspuit 279IS. It holds at least seven graves of which four are lined with cement strips and fitted with headstones.

Inscriptions on the headstones are indecipherable. Three graves are covered with piles of stone. GY02 is demarcated with a low dolerite stone wall and is probably older than sixty years.

GY02 will not be affected by the Sasol Project.



**Figure 9- GY02with seven graves is located on a high ridge above the Grootspuit (above).**

### 5.3.3 Graveyard 03

GY03 is also located on high ground away from the Grootspuit on the farm Grootspuit 279IS. This graveyard is demarcated with a solidly constructed dolerite wall and is older than sixty years.

GY03 holds at least five or six graves which all have been severely vandalised. One cement headstone is still standing. It has the following inscription:

- 'Hierrus Jan Hendrik Adriaan Roets Geb 24 Mei 1859 Oorl 28 Sept 1940 Ges 182:1'

This graveyard will not be affected by the Sasol Project.



**Figure 10- GY03 within the confines of an outer wall constructed with dolerite stone. All the graves have been severely vandalised - a phenomenon which is seen elsewhere on the Eastern Highveld (above).**

#### **5.3.4 Graveyard 04**

GY04 is located near Sasol's 400kV power line and is situated near the banks of the Grootspuit on the farm Grootspuit 279IS.



**Figure 11- GY04 comprises at least eight heaps of stone which are located near Sasol's 400kV power lines (above).**

GY04 contains seven to eight graves, all covered with piles of stone. No inscription occurs on any of the graves.

It is highly likely that GY04 is older than sixty years. It will be affected by the Sasol Project.

#### **5.3.4 Graveyard 05**

GY05 holds approximately ten graves all of whom are demarcated with upright standing stones. One of the graves is edged with bricks and fitted with a cement headstone with the following inscription: 'NettyMazibuku'

GY05 is probably older than sixty years and will be affected by the Sasol Project.



**Figure 12- GY05 is one of at least four graveyards located in and near the Sasol Project Area (below).**

**General note:**

Graveyards 01, GY02 and GY03 identified during this survey correspond with GY15, GY16 and GY17 recorded in the baseline heritage survey which was done for the Shondoni Project and for Sasol's Block 8 Reserves:

- Pistorius, J.C.C. 2013. 'A (Revised) baseline heritage study for Sasol's Mining's proposed Sasol ShondoniProject and for the Block 8 reserves on the Eastern Highveld in the Mpumalanga Province'. Unpublished report prepared for JMA Consulting (Pty) Ltd and Sasol Mining.

<b>Graveyards</b>	<b>Coordinates</b>	<b>Significance</b>
GY01.Graveyard located in Blue Gum bush.	26° 30.679' 29° 01.969' Zandfontein 130IS	<b>HIGH</b>
GY02.Graveyard located on high ridge.	26° 31.682' 29° 02.036' Grootspruit 279IS	<b>HIGH</b>
GY03. Second graveyard located on high ridge.	26° 31.842' 29° 02.281' Grootspruit 279IS	<b>HIGH</b>

GY04. Graveyard with seven or eight graves near Sasol's 400kV power lines	26° 32.057' 29° 02.233' Grootspruit 279IS	<b>HIGH</b>
GY05. Graveyard with ten graves demarcated with upright stones	26° 32.714' 29° 02.572' Grootspruit 279IS	<b>HIGH</b>

**Table 2- Coordinates and significance rating for graveyards in and near the Sasol Project Area (above).**

## **6 THE SIGNIFICANCE, POSSIBLE IMPACT ON AND MITIGATION OF THE HERITAGE RESOURCES**

### **6.1 The significance of the heritage resources**

Historical remains consisting of dwellings and cattle enclosures as well as GY01, GY04 and GY05 will be negatively affected by the Sasol Project. The significance of these heritage resources is indicated whilst mitigation measures are outlined for those heritage resources which will be affected by the Sasol Project.

#### **6.1.1 The historical remains**

The historical remains (dwellings, enclosures and graveyards) constitute a cultural landscape along the higher eastern banks of the Grootspuit due to the contextual and temporary connection between these remains. The dwellings, cattle enclosures and graveyards therefore are spatially, culturally and functional interrelated with each other and supports each other's meaning and existence. This landscape is also historical in nature as it approaches sixty years of age or may even be older.

Cultural landscapes are part of archaeological and historical remains and are protected by Section 38 of the National Heritage Resources Act (Act No 25 of 1999).

The cultural landscape has low to medium significance when considering criteria such as the following (Table 1):

- Historical remains such as those recorded in the Sasol Project Area (and elsewhere on the Eastern Highveld) are rapidly disappearing as a result of development and modernisation.
- The historical remains have research (scientific) value.
- The historical remains can add to our knowledge regarding human life ways and traditions on the Eastern Highveld during the turn of the nineteenth century.

### **6.1.2 The graveyards**

All graveyards and graves can be considered to be of high significance and are protected by various laws (Table 2). Legislation with regard to graves includes Section 36 of the National Heritage Resources Act (Act No 25 of 1999) whenever graves are older than sixty years.

The act also distinguishes various categories of graves and burial grounds. Other legislation with regard to graves includes those which apply when graves are exhumed and relocated, namely the Ordinance on Exhumations (No 12 of 1980) and the Human Tissues Act (No 65 of 1983 as amended).

## **6.2 Possible impact on and mitigation of the heritage resources**

The historical remains as well as GY01, GY04 and GY05 will be impacted by the proposed Sasol Project (conveyer belt). Mitigation measures therefore are outlined for these heritage resources.

### **6.2.1 The historical remains**

None of the historical remains associated with the cultural landscape may be negatively affected by the Sasol Project *prior* to their investigation by an archaeologist accredited with the South African Heritage Resources Agency (SAHRA). After these remains have been documented and a report has been furnished to SAHRA the developer (SASOL) has to acquire a demolishing permit from SAHRA before the cultural landscape may be affected as a result of the Sasol Project.

### **6.2.2 The graveyards**

Graveyards and graves can be mitigated by means of exhumation and relocation. The exhumation of human remains and the relocation of graveyards are regulated by various laws, regulations and administrative procedures. This task is undertaken by forensic archaeologists or by reputed undertakers who are acquainted with all the administrative procedures and relevant legislation that have to be adhered to

whenever human remains are exhumed and relocated. This process also includes social consultation with a 60 days statutory notice period for graves older than sixty years. Permission for the exhumation and relocation of human remains have to be obtained from the descendants of the deceased (if known), the National Department of Health, the Provincial Department of Health, the Premier of the Province and the local police.

## **7 CONCLUSION AND RECOMMENDATION**

The Phase I Heritage Impact Assessment (HIA) for the Sasol Project Area revealed the following types and ranges of heritage resources in and near the Sasol Project Area as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999), namely:

- Historical remains consisting of houses and cattle enclosures.
- Informal graveyards.

These heritage resources were geo-referenced and mapped (Figures 1-2, Tables 1-2).

(No archaeological [pre-historical] remains were recorded. Neither was any paleontological study conducted by this specialist.

### **The significance of the heritage resources**

Historical remains consisting of dwellings and cattle enclosures as well as graveyards will be negatively affected by the Sasol Project. The significance of these heritage resources is indicated whilst mitigation measures are outlined for those heritage resources which will be affected by the Sasol Project.

### **The historical remains**

The historical remains (dwellings, enclosures and graveyards) constitute a cultural landscape along the higher eastern banks of the Grootspuit due to the contextual and temporary connection between these remains. The dwellings, cattle enclosures and graveyards therefore are spatially, culturally and functional interrelated with each other and supports each other's meaning and existence. This landscape is also historical in nature as it approaches sixty years of age or may even be older.

Cultural landscapes are part of archaeological and historical remains and are protected by Section 38 of the National Heritage Resources Act (Act No 25 of 1999).

The cultural landscape has low to medium significance when considering criteria such as the following (Table 1):

- Historical remains such as those recorded in the Sasol Project Area (and elsewhere on the Eastern Highveld) are rapidly disappearing as a result of development and modernisation.
- The historical remains have research (scientific) value.
- The historical remains can add to our knowledge regarding human life ways and traditions on the Eastern Highveld during the turn of the nineteenth century.

### **The graveyards**

All graveyards and graves can be considered to be of high significance and are protected by various laws (Table 2). Legislation with regard to graves includes Section 36 of the National Heritage Resources Act (Act No 25 of 1999) whenever graves are older than sixty years.

The act also distinguishes various categories of graves and burial grounds. Other legislation with regard to graves includes those which apply when graves are exhumed and relocated, namely the Ordinance on Exhumations (No 12 of 1980) and the Human Tissues Act (No 65 of 1983 as amended).

### **Possible impact on and mitigation of the heritage resources**

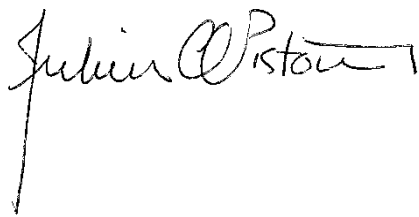
The historical remains as well as GY01, GY04 and GY05 will be impacted by the proposed Sasol Project (conveyer belt). Mitigation measures therefore are outlined for these heritage resources.

### **The historical remains**

None of the historical remains associated with the cultural landscape may be negatively affected by the Sasol Project *prior* to their investigation by an archaeologist accredited with the South African Heritage Resources Agency (SAHRA). After these remains have been documented and a report has been furnished to SAHRA the developer (SASOL) has to acquire a demolishing permit from SAHRA before the cultural landscape may be affected as a result of the Sasol Project.

## **The graveyards**

Graveyards and graves can be mitigated by means of exhumation and relocation. The exhumation of human remains and the relocation of graveyards are regulated by various laws, regulations and administrative procedures. This task is undertaken by forensic archaeologists or by reputed undertakers who are acquainted with all the administrative procedures and relevant legislation that have to be adhered to whenever human remains are exhumed and relocated. This process also includes social consultation with a 60 days statutory notice period for graves older than sixty years. Permission for the exhumation and relocation of human remains have to be obtained from the descendants of the deceased (if known), the National Department of Health, the Provincial Department of Health, the Premier of the Province and the local police.

A handwritten signature in black ink, appearing to read 'Julius CC Pistorius', with a long vertical line extending downwards from the end of the signature.

**DR JULIUS CC PISTORIUS**

**Archaeologist & Heritage Consultant**

**Member ASAPA**

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