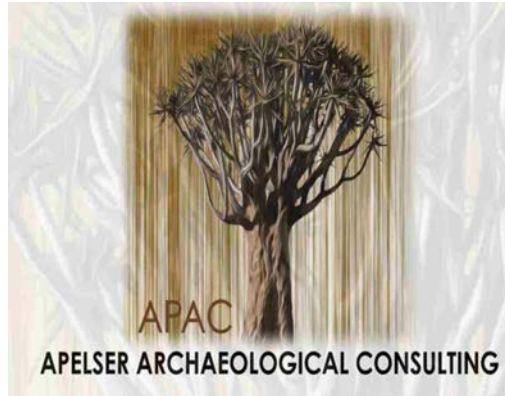


Appendix B: Updated Heritage Impact Assessment Report (APAC, 2018)



Comprehensive and Professional Solutions for all Heritage Related Matters
CK 2006/014630/23 VAT NO.: 4360226270

**AN AMENDED PHASE 1 HIA REPORT
FOR THE LEEUWPAN COLLIERY NEAR DELMAS
& THE RECORDING AND DOCUMENTATION OF GRAVES
AND GRAVE SITES THAT WILL BE IMPACTED BY
EXPANDING MINING OPERATIONS AT LEEUWPAN**

For:

*Synergistics Environmental Services (Pty) Ltd
P.O.Box 1596
Cramerview
2060*

REPORT: APAC018/77

by:

*A.J. Pelser
Accredited member of ASAPA*

November 2018

**P.O.BOX 73703
LYNNWOOD RIDGE
0040
Tel: 083 459 3091
Fax: 086 695 7247
Email: apac.heritage@gmail.com**

Member: AJ Pelser BA (UNISA), BA (Hons) (Archaeology), MA (Archaeology) [WITS]

©Copyright

APELSER ARCHAEOLOGICAL CONSULTING

The information contained in this report is the sole intellectual property of APELSER Archaeological Consulting. It may only be used for the purposes it was commissioned for by the client.

DISCLAIMER:

Although all efforts are made to identify all sites of cultural heritage (archaeological and historical) significance during an assessment of study areas, the nature of archaeological and historical sites are as such that it is always possible that hidden or subterranean sites, features or objects could be overlooked during the study. APELSER Archaeological Consulting can't be held liable for such oversights or for costs incurred as a result thereof.

Clients & Developers should not continue with any development actions until the South African Heritage Resource Agency (SAHRA) or one of its subsidiary bodies has provided final comments on this report. Submitting the report to SAHRA is the responsibility of the Client unless required of the Heritage Specialist as part of their appointment and Terms of Reference

A handwritten signature in black ink, appearing to be 'A. Pelser', written in a cursive style.

SUMMARY

APelser Archaeological Consulting (APAC) was appointed by Synergistics Environmental Services (Pty) Ltd to prepare an amended Phase 1 HIA report for the Exxaro Leeuwpan Colliery near Delmas in Mpumalanga. Part of this report includes the recording and documentation of graves and graves sites located on various farms in the Colliery area, for which APAC (in conjunction with AVBOB Johannesburg) was appointed for by SLR Consulting (South Africa) (Pty) Ltd and Exxaro. These graves will be impacted by expanding mining operations and will be investigated, exhumed and relocated after all due social consultation and permitting processes have been successfully completed.

APAC cc was appointed by Synergistics Environmental Services (Pty) Ltd in 2014, on behalf of Exxaro Coal's Leeuwpan Coal Mine, to conduct a review of previous Heritage Impact Assessments (2 studies were provided namely a 2006 and 2012 Report by Van Schalkwyk & Van Vollenhoven respectively) for the Leeuwpan Colliery, while the assessment of two grave sites that were to be impacted by expanding Mining Operations (Moabsvelden Block on Portion 1 of Moabsvelden 248IR) and required exhumation and relocation was also to be undertaken.

A resultant report (See APAC014/38) was submitted in August 2014. In total 17 sites (13 grave sites and 4 historical homesteads/farmsteads) were identified in the earlier studies. Mitigation measures regarding these sites were put forward. It should also be mentioned that the 2012 report by Van Vollenhoven included information on sites recorded by and included in a 2007/8 report by Pistorius. The 2014 assessment by Pelser focused mainly on the 2 grave sites that were to be impacted by mining development at the time. The approximately 47 graves contained on these 2 sites were subsequently exhumed and relocated in 2015 and the results included in a submitted report in July 2014 (See APAC015/27).

The November 2018 assessment focused on new graves and grave sites that will be impacted on by expanding mining operations. The farms where these sites and graves are located is on Rietkuil 249IR and Kenbar 257IR (OI West). A total of 5 sites and 97 graves are represented.

The report also provides recommendations on the way forward in terms of the Grave investigation, exhumation and relocation process.

CONTENTS

	page
SUMMARY	3
CONTENTS.....	4
1. INTRODUCTION	5
2. TERMS OF REFERENCE	5
3. LEGISLATIVE REQUIREMENTS	5
4. METHODOLOGY	8
5. DESCRIPTION OF THE AREA.....	9
6. DISCUSSION.....	12
7. CONCLUSIONS AND RECOMMENDATIONS	27
8. REFERENCES	28
APPENDIX A – DEFINITION OF TERMS	30
APPENDIX B – DEFINITION/ STATEMENT OF SIGNIFICANCE.....	31
APPENDIX C – SIGNIFICANCE AND FIELD RATING.....	32
APPENDIX D – PROTECTION OF HERITAGE RESOURCES.....	33
APPENDIX E – HERITAGE MANAGEMENT IMPACT ASSESSMENT PHASES.....	34

1. INTRODUCTION

APelser Archaeological Consulting (APAC) was appointed by Synergistics Environmental Services (Pty) Ltd to prepare an amended Phase 1 HIA report for the Exxaro Leeuwan Colliery near Delmas in Mpumalanga. Part of this report includes the recording and documentation of graves and graves sites located on various farms in the Colliery area, for which APAC (in conjunction with AVBOB Johannesburg) was appointed for by SLR Consulting (South Africa) (Pty) Ltd (SLR SA) and Exxaro. These graves will be impacted by expanding mining operations and will be investigated, exhumed and relocated after all due social consultation and permitting processes have been successfully completed.

APAC cc was appointed by Synergistics Environmental Services (Pty) Ltd in 2014, on behalf of Exxaro Coal's Leeuwan Coal Mine, to conduct a review of previous Heritage Impact Assessments (2 studies were provided namely a 2006 and 2012 Report by Van Schalkwyk & Van Vollenhoven respectively) for the Leeuwan Colliery, while the assessment of two grave sites that were to be impacted by expanding Mining Operations (Moabsvelden Block on Portion 1 of Moabsvelden 248IR) and required exhumation and relocation was also to be undertaken.

A resultant report (**See APAC014/38**) was submitted in August 2014. In total 17 sites (13 grave sites and 4 historical homesteads/farmsteads) were identified in the earlier studies. Mitigation measures regarding these sites were put forward. It should also be mentioned that the 2012 report by Van Vollenhoven included information on sites recorded by and included in a 2007/8 report by Pistorius. The 2014 assessment by Pelsler focused mainly on the 2 grave sites that were to be impacted by mining development at the time. The approximately 47 graves contained on these 2 sites were subsequently exhumed and relocated in 2015 and the results included in a submitted report in July 2014 (**See APAC015/27**).

The November 2018 assessment focused on new graves and grave sites that will be impacted on by expanding mining operations. The farms where these sites and graves are located are on Rietkuil 249IR and Kenbar 257IR (OI West). A total of 5 sites and 97 graves are represented.

The client indicated the location of the new graves and graves sites, and the assessment focused on these areas. During the site visit and recording of the graves and grave sites the specialist team (including members of APAC and AVBOB) was accompanied by representatives of both SLR SA and Exxaro Leeuwan Colliery.

2. TERMS OF REFERENCE

The Terms of Reference for the study was to:

1. *Identify all objects, sites, occurrences and structures of an archaeological or historical nature (cultural heritage sites) located on the portion of land that will be impacted upon by the proposed development;*
2. *Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value;*

3. *Describe the possible impact of the proposed development on these cultural remains, according to a standard set of conventions;*
4. *Propose suitable mitigation measures to minimize possible negative impacts on the cultural resources;*
5. *Review applicable legislative requirements;*

3. LEGISLATIVE REQUIREMENTS

Aspects concerning the conservation of cultural resources are dealt with mainly in two acts. These are the National Heritage Resources Act (Act 25 of 1999) and the National Environmental Management Act (Act 107 of 1998).

3.1 The National Heritage Resources Act

According to the above-mentioned act the following is protected as cultural heritage resources:

- a. Archaeological artifacts, structures and sites older than 100 years
- b. Ethnographic art objects (e.g. prehistoric rock art) and ethnography
- c. Objects of decorative and visual arts
- d. Military objects, structures and sites older than 75 years
- e. Historical objects, structures and sites older than 60 years
- f. Proclaimed heritage sites
- g. ***Grave yards and graves older than 60 years***
- h. Meteorites and fossils
- i. Objects, structures and sites of scientific or technological value.

The National Estate includes the following:

- a. Places, buildings, structures and equipment of cultural significance
- b. Places to which oral traditions are attached or which are associated with living heritage
- c. Historical settlements and townscapes
- d. Landscapes and features of cultural significance
- e. Geological sites of scientific or cultural importance
- f. Sites of Archaeological and palaeontological importance
- g. ***Graves and burial grounds***
- h. Sites of significance relating to the history of slavery
- i. Movable objects (e.g. archaeological, palaeontological, meteorites, geological specimens, military, ethnographic, books etc.)

A Heritage Impact Assessment (HIA) is the process to be followed in order to determine whether any heritage resources are located within the area to be developed as well as the possible impact of the proposed development thereon. An Archaeological Impact Assessment (AIA) only looks at archaeological resources. An HIA must be done under the following circumstances:

- a. The construction of a linear development (road, wall, power line, canal etc.) exceeding 300m in length
- b. The construction of a bridge or similar structure exceeding 50m in length
- c. Any development or other activity that will change the character of a site and exceed 5 000m² or involve three or more existing erven or subdivisions thereof
- d. Re-zoning of a site exceeding 10 000 m²
- e. Any other category provided for in the regulations of SAHRA or a provincial heritage authority

Structures

Section 34 (1) of the mentioned act states that no person may demolish any structure or part thereof which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

A structure means any building, works, device or other facility made by people and which is fixed to land, and includes any fixtures, fittings and equipment associated therewith.

Alter means any action affecting the structure, appearance or physical properties of a place or object, whether by way of structural or other works, by painting, plastering or the decoration or any other means.

Archaeology, palaeontology and meteorites

Section 35(4) of this act deals with archaeology, palaeontology and meteorites. The act states that no person may, without a permit issued by the responsible heritage resources authority (national or provincial)

- a. destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or 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 that assists in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.
- e. alter or demolish any structure or part of a structure which is older than 60 years as protected.

The above mentioned may only be disturbed or moved by an archaeologist, after receiving a permit from the South African Heritage Resources Agency (SAHRA). In order to demolish such a site or structure, a destruction permit from SAHRA will also be needed.

Human remains

Graves and burial grounds are divided into the following:

- a. ancestral graves
- b. royal graves and graves of traditional leaders
- c. graves of victims of conflict
- d. graves designated by the Minister
- e. historical graves and cemeteries
- f. human remains

In terms of Section 36(3) of the National Heritage Resources Act, no person may, without a permit issued by the relevant heritage resources authority:

- a. destroy, damage, alter, exhume or remove from its original position of otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;
- b. destroy, damage, alter, exhume or remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or
- c. bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation, or any equipment which assists in the detection or recovery of metals.

Human remains that are less than 60 years old are subject to provisions of the Human Tissue Act (Act 65 of 1983) and to local regulations. Exhumation of graves must conform to the standards set out in the **Ordinance on Excavations (Ordinance no. 12 of 1980)** (replacing the old Transvaal Ordinance no. 7 of 1925).

Permission must also be gained from the descendants (where known), the National Department of Health, Provincial Department of Health, Premier of the Province and local police. Furthermore, permission must also be gained from the various landowners (i.e. where the graves are located and where they are to be relocated to) before exhumation can take place.

Human remains can only be handled by a registered undertaker or an institution declared under the **Human Tissues Act (Act 65 of 1983 as amended)**.

3.2 The National Environmental Management Act

This act states that a survey and evaluation of cultural resources must be done in areas where development projects, that will change the face of the environment, will be undertaken. The impact of the development on these resources should be determined and proposals for the mitigation thereof are made.

Environmental management should also take the cultural and social needs of people into account. Any disturbance of landscapes and sites that constitute the nation's cultural heritage

should be avoided as far as possible and where this is not possible the disturbance should be minimized and remedied.

4. METHODOLOGY

4.1 Survey of literature

A survey of available literature was undertaken in order to place the development area in an archaeological and historical context. The sources utilized in this regard are indicated in the bibliography.

4.2 Field survey

The field assessment section of the study was conducted according to generally accepted AIA/HIA practices and aimed at locating all possible objects, sites and features of heritage significance in the area of the proposed development. The location/position of all sites, features and objects was determined by means of a Global Positioning System (GPS), while detailed photographs were also taken where possible.

4.3 Oral histories

People from local communities are sometimes interviewed in order to obtain information relating to the surveyed area. It needs to be stated that this is not applicable under all circumstances. When applicable, the information is included in the text and referred to in the bibliography.

4.4 Documentation

All sites, objects, features and structures identified are documented according to a general set of minimum standards. Co-ordinates of individual localities were determined by means of the Global Positioning System (GPS). The information is added to the description in order to facilitate the identification of each locality.

5. DESCRIPTION OF THE AREA

The Leeuwpans Coal Mine study area is located on portions of the farms Leeuwpans 246 IR, Moabsvelden 248IR, Rietkuil 249IR, Kenbar 257IR, Goedgedacht 226IR and Wolvenfontein 244IR. The New graves and grave sites that had to be assessed and that will be impacted upon by expanding mining operations are located on portions of Rietkuil 249IR and Kenbar 257IR (Site OI West).

The topography of the area is relatively flat, and in general the area is characterized by open rolling grassveld, with very little tree cover except for clumps of bluegum and other trees. The area (some portions) were used extensively in the past for agricultural purposes (ploughing/crop growing and cattle/livestock), and as a result the area has been disturbed in the recent past. The historic farmsteads/homesteads and the various graveyards (European farmers and farmworker graves) are related to this phase of human utilization and evidence of prehistoric (archaeological) human presence would have been disturbed or destroyed to a

large degree as a result of recent activities. Mining operations in certain portions have also impacted to a very large degree on the archaeological and historic nature of the area.

The graves and grave sites assessed in November 2018 is situated in and close to homesteads on Rietkuil farm (Rietkuil Village), as well as on Kenbar 257IR (so-called OI West). The OI West site is located in an area close to what used to be agricultural fields. The site has been fenced-in and was densely vegetated (grass, weeds) during the assessment. Visibility in its case was therefore hampered.



Fig.1: General location of Exxaro Leeuwpán Mine (Google Earth 2018).



Fig.2: Closer view of Mine area (Google Earth 2018).



Fig.3: A view of one of the homesteads on Rietkuil (Rietkuil Village).



Fig.4: A general view of the OI West (Kenbar 257IR) Site.

6. DISCUSSION

The Stone Age is the period in human history when lithic (stone) material was mainly used to produce tools. In South Africa the Stone Age can be divided basically into three periods. It is however important to note that dates are relative and only provide a broad framework for interpretation. A basic sequence for the South African Stone Age (Lombard et.al 2012) is as follows:

Earlier Stone Age (ESA) up to 2 million – more than 200 000 years ago
Middle Stone Age (MSA) less than 300 000 – 20 000 years ago
Later Stone Age (LSA) 40 000 years ago – 2000 years ago

It should also be noted that these dates are not a neat fit because of variability and overlapping ages between sites (Lombard et.al 2012: 125).

The closest Stone Age occurrence found to the Delmas area is the Late Stone Age site at Fort Troje situated close to Cullinan (Bergh 1999:4). The fact that there are no known Stone Age sites or occurrences close to or in the study area might only indicate a lack of research. However, no Stone Age stone tools were identified during the 2014 archaeological assessment of the proposed development area. It is possible that single, scattered, tools might be recovered during development work, although this might be chance finds only.

The Iron Age is the name given to the period of human history when metal was mainly used to produce artifacts. In South Africa it can be divided in two separate phases (Bergh 1999: 96-98), namely:

Early Iron Age (EIA) 200 – 1000 A.D.
Late Iron Age (LIA) 1000 – 1850 A.D.

Huffman (2007: xiii) indicates that a Middle Iron Age should be included. His dates, which are widely accepted in archaeological circles, are:

Early Iron Age (EIA) 250 – 900 A.D.

Middle Iron Age (MIA) 900 – 1300 A.D.

Late Iron Age (LIA) 1300 – 1840 A.D.

Late Iron Age sites have been identified in the Delmas area (Bergh (1999: 7). Other known Iron Age features close to the study have been identified to the west of Bronkhorstspuit and in the vicinity of Bethal (Bergh 1999: 7). These all are dated to the Late Iron Age. No indication of metal smelting was identified at any of these sites (Bergh 1999: 7-8). During the difaqane (1832) the Zulu moved through this area in order to attack the Ndebele (Bergh 1999: 11).

According to Pistorius the Eastern Highveld had probably not been occupied by Early Iron Age communities, but was occupied by Late Iron Age farming communities such as the Sotho, Swazi and Ndebele who established stone walled settlement complexes. Seemingly these sites are more common towards the eastern perimeters of the Eastern Highveld. Small, inconspicuous stone walled sites have been observed along the Olifants River but are an exception and not the rule (Pistorius 2010: 16-17). Once again no Iron Age sites, features or objects were identified during the 2014 assessment of the study area.

The historical period usually starts with the moving into an area of people that were able to read and write and record histories such as early European travellers and/or missionaries. The earliest European group to visit the area was that of one Robert Scoon who passed through during 1836. In 1847 Dr. David Livingstone also visited the area during his travels. The parties of the Voortrekkers Louis Tregardt and Hans van Rensburg also moved through here during 1836 (Bergh 1999: 13-14). European farmers only settled in the study area between 1841 and 1850 (Bergh 1999: 15).

Delmas was laid out in 1907 on the farm Witklip („white stone“) which was divided into 192 residential stands, 48 smallholdings of 4 ha each and a commonage of 138 ha. The farm belonged to Frank Dumat (a Frenchman). He named the town Delmas which is derived from „mas“ which means “small farm” in French. In 1909 the government added another 5 500 ha to Frank Dumat’s original rural settlement (Pistorius 2007: 18).

Results of the Previous Heritage Impact Assessments

The sites recorded during the earlier 2008 and 2012 will be briefly mentioned here again, but will not be discussed in detail as they have been included in an earlier report submitted by APAC in 2014. These sites will be shown on a Site Distribution map in relation to the new graves and grave sites discussed later on in the report.

The information is taken from Van Vollenhoven’s 2012 Report (done for GCS and provided by Exxaro Leeuwpan) which contains information on sites identified by himself, Van Schalkwyk (2006) and Pistorius (2007).

Site 1

This large graveyard is found in close proximity to a blue gum plantation. It contains at least 63 graves according to Van Vollenhoven, while Pistorius indicated more than 50. The graves have all types of dressings or borders and headstones, including cement, stone, brick and granite. Many of the graves have no legible inscriptions on their headstones and are therefore unknown. Those with dates range between 1972 and 2005. Some of the families identified include Mtsweni, Sithole, Masilela, Mabena and Kgomo.

GPS: S26 11.426 E28 46.301 - Pistorius Site 4.

Site 2

This is another graveyard located within a maize field and in close proximity to Site 1. Van Vollenhoven indicated the presence of at least 6 graves, although Pistorius (his Site 5) counted at least 20. Some of the graves have cement borders and headstones. One has a brick border and two of them have a metal fence around them. Two of the graves are unknown in terms of identity and date of death, while the others range between 1968 and 2003. Families identified include Mahlangu and Mabena.

GPS: S26 11.453 E28 46.272

Site 3

This is a large grave yard containing at least 99 graves. The types of grave dressing and headstones include granite, cement, stone and brick. The dates of death range between 1947 and 1973, while some are unknown. Family names recorded include Mabena, Ngoma, Ndlopfu, Mzizi and Malaza.

GPS: S26 10.815 E28 42.251

Site 4

This is yet another graveyard containing at least 90 graves. Grave dressing and headstones range between granite, stone or cement. Although not all the grave headstones have legible inscriptions, those that do dates of death ranging between 1972 and 2004. Families identified include Ngomalwa, Mapos and Mahlangu.

GPS: S26 08.665 E28 46.466

Site 5

The Site 5 graveyard contains at least 31 graves according to Van Vollenhoven, and Van Schalkwyk (his Site 1) counted more than 30. Stone and/or cement grave dressings and headstones dominate. Most of the graves are unknown, but some have inscriptions that date them to between 1939 and 1940. Families identified include Makau, Diale and Mackau.

GPS: S26 09.722 E28 45.732

Site 6

This is another graveyard, and contains approximately 20 graves. There are three types of dressing and headstones namely stone, brick or cement. Most of the graves are unknown and only one date of death was identified (1958). The family names that were identified include Mbonau, Mbonani and Mulitana.

This site is Number Graveyard 2 and was one of the sites in the Moabsvelden Block and that have been investigated, exhumed and relocated in 2015.

GPS: S26 08.286 E28 47.719

Site 7

Site 7 relates to Van Schalkwyk's Site No 2. It contained 3 graves. No photograph was included in his report.

GPS: S26 09.833 28 45.583

Site 8

Site 8 relates to Site No 01 from the Pistorius report and according to him contained more than 100 graves.

GPS: S26 07.958 E28 46.522

Site 9

This is Site No 02 from the Pistorius report. Pretorius indicated that there were more than 50 graves.

GPS: S26 08.667 E28 46.640

Site 10

Site 10 is Site No 03 from the Pistorius report. He counted more than 50 graves. According to Van Vollenhoven, Pistorius did not include a photograph of the site in his report.

GPS: S26 09.337 E28 47.121

Site 11

This graveyard was identified by Mine staff, and no photograph was provided. The number of graves is unknown.

GPS: S26 07.920 E28 45.690

Site 12

The Site 12 graveyard was also identified by Mine staff. No photograph was provided and the number of graves is unknown.

GPS: S26 11.062 E28 44.527

Site 13

Once again Site 13 was identified by Mine staff. No photograph was provided and the numbers of graves are unknown.

This is Graveyard 1 – one of the sites investigated, exhumed and relocated in 2015.

GPS: S26 08.380 E28 47.865

Site 14

Site 14 was recorded by Dr. Julius Pistorius and is a historical farm complex with at least three buildings older than 60 years. The site is located on the property of a modern farm homestead on Moabsvelden 248. The homestead includes the following:

1. the historical complex comprising four structures.
2. at least two modern farm residences with associated outbuildings.
3. modern farm infrastructure comprising several sheds.
4. shacks occupied by labourers, with some partially demolished

The historical complex includes the following four structures:

1. a shed which was used for milking cows (milk shed).
2. a shed which was probably used to store fodder, wagons and other farm implements (wagon shed).
3. a large residence.
4. a small residence.

According to Pistorius these structures were constructed contemporary and they respectively served as the main dwelling, a second smaller dwelling and sheds which were part of a farm homestead, probably dating between the 1930's or 1940's. None of the structures were altered significantly on the outside and all the structures are in a relatively good condition. The various buildings were constructed with the same building material and all the structures adhere to a single architectural style.

GPS: S26 08.472 E28 47.333

The site has a Medium cultural significance. It has a general local significance and is therefore given a rating of Grade B (IVB). It may therefore be mitigated. The structures may be demolished, but only after it has been documented by a heritage expert. This would include detailed photographs and drawing a site map and simple outline drawings of each.

Site 15

This site was also identified by Pistorius and consists of a historical farm building older than 60 years of age. The site is situated on Rietkuil 249 and is in a severely dilapidated state. It was constructed with clay bricks and cement and fitted with a pitched corrugated iron roof. Parts of the walls of the house were apparently recently plastered with a fresh layer of cement as the windows were removed from the house and closed with brick and cement. The structure is currently used as a sheep pen. It is associated with a two roomed outbuilding and a stand for a water tank. Both structures, like the house, are severely dilapidated.

GPS: S26 11.360 E28 46.382

The site has a Medium cultural significance. It has a general local significance and is therefore given a rating of Grade B (IVB). It may therefore be mitigated. The structure may be demolished, but only after it has been documented by a heritage expert. This would include detailed photographs and drawing a site map and simple outline drawings of each.

Site 16

Site 16 was identified by Pistorius. It consists of two historical farm buildings older than 60 years and is located on Wolwenfontein 244. It was renovated extensively in the more recent past and probably dates from the 1940's, but has lost much of its original fabric. The house most likely originally consisted of four rooms including a kitchen, sitting room and two bedrooms.

GPS: S26 10.700 E28 42.947

The site has a Medium cultural significance. It has a general local significance and is therefore given a rating of Grade B (IVB). It may therefore be mitigated. The structures may be demolished, but only after it has been documented by a heritage expert. This would include detailed photographs and drawing a site map and simple outline drawings of each.

Site 17

This was another site identified by Pistorius and represents a historical farm house that might be just slightly older than 60 years of age. It is severely dilapidated and is structurally unsafe. The house is located on Wolwenfontein 244 and was built with face bricks and cement. It is covered with a pitch corrugated iron roof and fitted with steel window frames. It was connected in more recent times with a water stand and a nearby shed. It is possible that the house, shed and water tank may date from the same time period, namely the 1940's or the 1950's.

GPS: S26 10.739 E28 42.957

The site has a Low cultural significance. It has a general local significance and is therefore given a rating of Grade C (IVC). This report is therefore seen as ample mitigation. The structure may be demolished without any further mitigation.

Site 18

This site was identified during the 2014 assessment, and is situated close to the so-called Pit OJ of the Coal Mine, and in an area that contains evidence of farming activities. The site consists of the foundation of a stone-built structure/platform. The function and age of this feature could not be determined, but it is possible that it represents the remains of a small labourer dwelling. No other features were identified. Dense grass and other vegetation made visibility difficult, and it is possible that other unknown features (such as low stone-packed or unmarked graves) could still be located during development activities. Should this occur then these would have to be recorded and assessed in terms of their significance and the mitigation measures that might or might not be required.

GPS: S26 09 48.2 E28 45 13.3

The site has a Low cultural significance. It has a general local significance and is therefore given a rating of Grade C (IVC). This report is therefore seen as ample mitigation. The structure may be demolished without any further mitigation.

Graves always are regarded as having a High cultural significance. In this case there are three categories of graves being those older than 60 years, those younger than 60 years and those of an unknown date. These graves are of a local significance and are therefore given a rating of Grade IIIB. It may therefore be mitigated. Grave and the impacts of any possible development on them can be handled in two ways. The first is to fence it off, preserve in situ and the drafting and implementation of a Graves Management Plan. The second is the exhumation and relocation of the graves if the development cannot avoid the graves and there is therefore a direct and negative impact on them. Before exhumation a process of social consultation is required in order to find the possible descendants/families and obtain consent for the exhumation and relocation. Permits are also required from SAHRA, the Provincial Health Department and Local Authorities before the work can commence.

Results of the November 2018 Fieldwork

Five (5) new grave site locations were assessed in November 2018. Four of these are located in the Rietkuil Village on Rietkuil farm, while the fifth is located on Kenbar farm (known as OI West). A total of around 97 graves are represented by these sites.

Site B2G1

This site contains the grave of Baby Jeremiah Shabangu. According to family members he was around 2 weeks of age when he passed away in approximately 1998/1999. The grave is located inside the family homestead. Grave Numbered as LM01.

GPS: S26 11 18.70 E28 46 10.00

Site B4G11

This site contains 2 graves of an infant boy and girl. Both were still-born in around 1993/1994. The family could not provide names and they are both known as Baby Mbonani.

The graves were numbered as LM03 and LM04. The graves are located in the family homestead.

GPS: S26 11 20.80 E28 46 01.80

Site C285

This site was thought to have contained a single infant grave inside the homestead, but during the site visit it was confirmed that it does in fact not contain any burial.

GPS: S26 11 17.70 E28 46 02.10

Site A4G

The site located close to but outside a homestead, contains the single grave of an infant called Johanna Songo. Her age at death was not known, but she passed away in approximately 1997. The grave was numbered LM02.

GPS: S26 11 18.40 E28 45 59.80

Site OI West

This site is the **old Site 12** mentioned earlier in the 2014 report. It contains approximately 93 graves, although there is a possibility of more. The vegetation on the site was very dense during the assessment in November 2018 and not all the graves were visible or could be marked. Site clearance will have to be done before the exact number of graves are known and to undertake the detailed documentation and numbering of the graves on site.

Most of the graves are stone-packed without formal headstones and are at this stage unidentified. There are some graves with more formal headstones and legible inscriptions however. The families represented by these graves include Mgidi, Radinne, Motsogi, Ngoma, Mahlangu, Sekgothe, Ngwenya and Ndlovu. The dates of death noted on the graves range between 1936 and the late 1970's.

GPS: S26 11 04.10 E28 44 31.80



Fig.5: Site B2G1.



Fig.6: Closer view of grave at B2G1.



Fig.7: Site G4G11. Graves LM03 & 04 are located inside the homestead with the red door.



Fig.8: Site C285. No grave is located here.



Fig.9: Site A4G.



Fig.10: Grave LM02 at Site A4G.



Fig.11: The location of A4G close to structure.



Fig.12: A view of some of the graves at OI West (old Site 12).



Fig.13: Another view of some of the graves at OI West.



Fig.14: More graves at OI West.

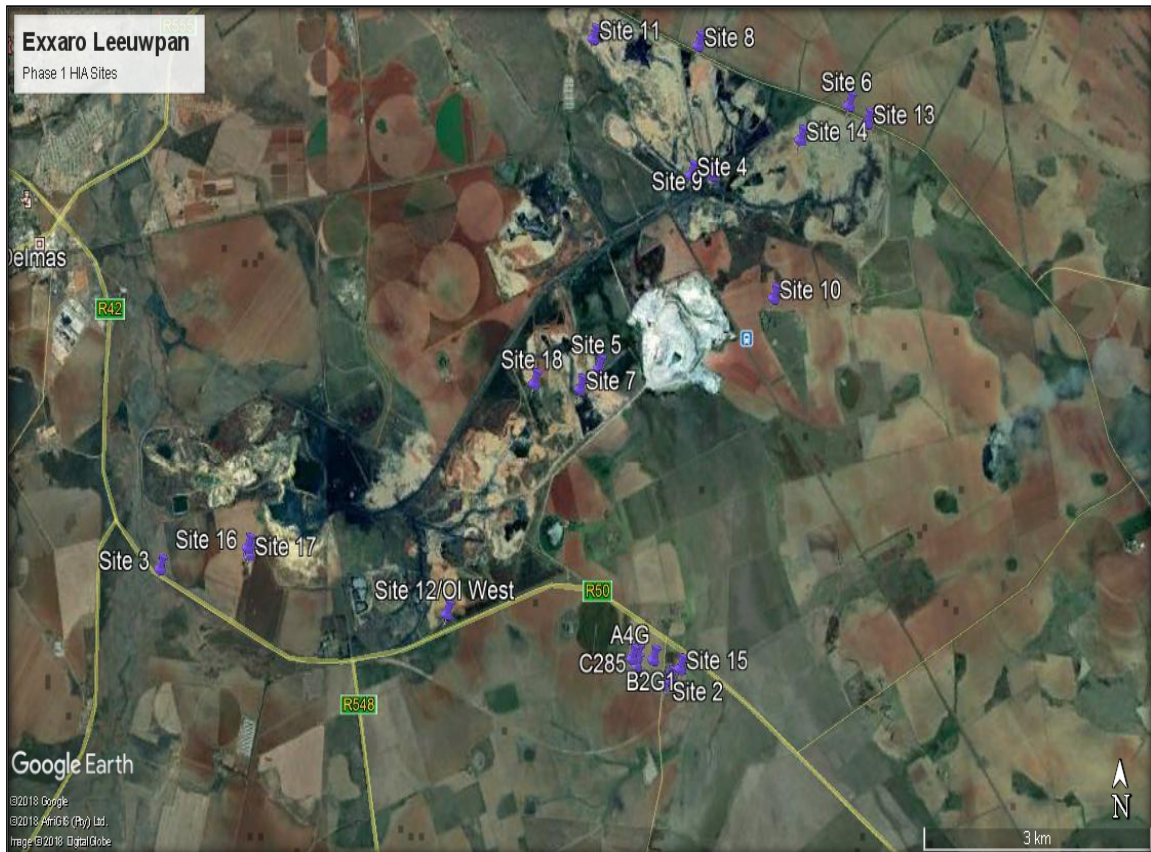


Fig.15: The sites found at Leeuwan during various assessments (Google Earth 2018).



Fig.16: Closer view of the Rietkuil Sites (Google Earth 2018).



Fig.17: Closer view of Site OI West/old Site 12 (Google Earth 2018).



Fig.18: Site Notice at Rietkuil Village.



Fig.19: Another Site Notice at Rietkuil.



Fig.20: Site Notice at OI West.

7. CONCLUSIONS AND RECOMMENDATIONS

APelser Archaeological Consulting (APAC) was appointed by Synergistics Environmental Services (Pty) Ltd to prepare an amended Phase 1 HIA report for the Exxaro Leeuwan Colliery near Delmas in Mpumalanga. Part of this report includes the recording and documentation of graves and graves sites located on various farms in the Colliery area, for which APAC (in conjunction with AVBOB Johannesburg) was appointed for by SLR SA and Exxaro.

APAC cc was appointed by Synergistics Environmental Services (Pty) Ltd in 2014, on behalf of Exxaro Coal's Leeuwan Coal Mine, to conduct a review of previous Heritage Impact Assessments (2 studies were provided namely a 2006 and 2012 Report by Van Schalkwyk & Van Vollenhoven respectively) for the Leeuwan Colliery, while the assessment of two grave

sites that were to be impacted by expanding Mining Operations (Moabsvelden Block on Portion 1 of Moabsvelden 248IR) and required exhumation and relocation was also to be undertaken.

A resultant report (See APAC014/38) was submitted in August 2014. In total 17 sites (13 grave sites and 4 historical homesteads/farmsteads) were identified in the earlier studies. Mitigation measures regarding these sites were put forward. It should also be mentioned that the 2012 report by Van Vollenhoven included information on sites recorded by and included in a 2007/8 report by Pistorius. The 2014 assessment by Pelser focused mainly on the 2 grave sites that were to be impacted by mining development at the time. The approximately 47 graves contained on these 2 sites were subsequently exhumed and relocated in 2015 and the results included in a submitted report in July 2014 (See APAC015/27).

The November 2018 assessment focused on new graves and grave sites. The farms where these sites and graves are located are on Rietkuil 249IR and Kenbar 257IR (OI West). A total of 5 sites and 97 graves are represented.

These graves will be directly impacted upon by expanding mining operations and cannot be avoided as a result and needs to be investigated, exhumed and relocated after all due social consultation and permitting processes have been successfully completed. Social consultation has already commenced and once the process has been completed the various permit applications will be made. As soon as these permits have been issued the physical work will be scheduled and undertaken in due course.

Finally, it should be noted that although all efforts are made to locate, identify and record all possible cultural heritage sites and features (including archaeological remains) there is always a possibility that some might have been missed. The subterranean nature of these resources (including low stone-packed or unmarked graves) should also be taken into consideration. Should any previously unknown or invisible sites, features or material be uncovered during any development actions then an expert should be contacted to investigate and provide recommendations on the way forward.

8. REFERENCES

General and Closer view of study area location, as well as Sites recorded: Google Earth 2018.

Bergh, J.S. (red.). 1999. **Geskiedenisatlas van Suid-Afrika. Die vier noordelike provinsies**. Pretoria: J.L. van Schaik.

Huffman, T.N. 2007. **Handbook to the Iron Age: The Archaeology of Pre-Colonial Farming Societies in Southern Africa**. Scottsville: University of KwaZulu-Natal Press.

Lombard, M., L. Wadley, J. Deacon, S. Wurz, I. Parsons, M. Mohapi, J. Swart & P. Mitchell. 2012. **South African and Lesotho Stone Age Sequence Updated (I)**. South African Archaeological Bulletin **67** (195): 120–144, 2012.

Knudson, S.J. 1978. **Culture in retrospect**. Chicago: Rand McNally College Publishing Company.

Lombard, M., L. Wadley, J. Deacon, S. Wurz, I. Parsons, M. Mohapi, J. Swart & P. Mitchell. 2012. **South African and Lesotho Stone Age Sequence Updated (I)**. South African Archaeological Bulletin 67 (195): 120–144, 2012.

Pelser, A.J. 2014. **A HIA Review and Graves Assessment Report for Graves to be Exhumed and Relocated at the Leeuwan Colliery near Delmas (Moabsvelden Block on Portion 1 Moabsvelden 248IR), Mpumalanga**. Unpublished Report APAC014/38. For: Synergistics Environmental Services (Pty) Ltd. August 2014.

Pelser, A.J. 2014. **Report on the Investigation, Exhumation and Relocation of a Number of Known and Unknown Graves on Two Sites Impacted on by Opencast Coal Mining Operations on Portion 1 of the farm Moabsvelden 248IR, near Delmas, Mpumalanga (Exxaro Leeuwan Coal Mine)**. Unpublished Report APAC015/27. For: Synergistics Environmental Services (Pty) Ltd. July 2015.

Pistorius, J.C.C., 2007. **A Phase 1 Heritage Impact Assessment (HIA) Study for Moabsvelden 248, Rietkuil 249 and Wolvenfontein 244 near Delmas in the Mpumalanga Province of South Africa**. (Unpublished report, Pretoria).

Republic of South Africa. 1999. **National Heritage Resources Act** (No 25 of 1999). Pretoria: the Government Printer.

Republic of South Africa. 1998. **National Environmental Management Act** (no 107 of 1998). Pretoria: The Government Printer.

Van Schalkwyk, J.A. 2006. **Cultural Heritage Scoping Report for the Proposed Leeuwan Mining Development, Delmas District, Mpumalanga**. Unpublished Report National Cultural History Museum 2006KH092. For: Synergistics Environmental Services (Pty) Ltd. August 2006.

Van Vollenhoven, A.C. 2012. **A Report on a Heritage Impact Assessment for the Exxaro Leeuwan Coal Consolidation of EMPR'S, close to Delmas in the Mpumalanga Province**. Unpublished Report Archaeos cc AE01217V. For: GCS April 2012

APPENDIX A
DEFINITION OF TERMS:

Site: A large place with extensive structures and related cultural objects. It can also be a large assemblage of cultural artifacts, found on a single location.

Structure: A permanent building found in isolation or which forms a site in conjunction with other structures.

Feature: A coincidental find of movable cultural objects.

Object: Artifact (cultural object).

(Also see Knudson 1978: 20).

APPENDIX B
DEFINITION/ STATEMENT OF HERITAGE SIGNIFICANCE:

Historic value: Important in the community or pattern of history or has an association with the life or work of a person, group or organization of importance in history.

Aesthetic value: Important in exhibiting particular aesthetic characteristics valued by a community or cultural group.

Scientific value: Potential to yield information that will contribute to an understanding of natural or cultural history or is important in demonstrating a high degree of creative or technical achievement of a particular period

Social value: Have a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.

Rarity: Does it possess uncommon, rare or endangered aspects of natural or cultural heritage.

Representivity: Important in demonstrating the principal characteristics of a particular class of natural or cultural places or object or a range of landscapes or environments characteristic of its class or of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, province region or locality.

APPENDIX C

SIGNIFICANCE AND FIELD RATING:

Cultural significance:

- Low: A cultural object being found out of context, not being part of a site or without any related feature/structure in its surroundings.
- Medium: Any site, structure or feature being regarded less important due to a number of factors, such as date and frequency. Also any important object found out of context.
- High: Any site, structure or feature regarded as important because of its age or uniqueness. Graves are always categorized as of a high importance. Also any important object found within a specific context.

Heritage significance:

- Grade I: Heritage resources with exceptional qualities to the extent that they are of national significance
- Grade II: Heritage resources with qualities giving it provincial or regional importance although it may form part of the national estate
- Grade III: Other heritage resources of local importance and therefore worthy of conservation

Field ratings:

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

APPENDIX D
PROTECTION OF HERITAGE RESOURCES:

Formal protection:

National heritage sites and Provincial heritage sites – Grade I and II

Protected areas - An area surrounding a heritage site

Provisional protection – For a maximum period of two years

Heritage registers – Listing Grades II and III

Heritage areas – Areas with more than one heritage site included

Heritage objects – e.g. Archaeological, palaeontological, meteorites, geological specimens, visual art, military, numismatic, books, etc.

General protection:

Objects protected by the laws of foreign states

Structures – Older than 60 years

Archaeology, palaeontology and meteorites

Burial grounds and graves

Public monuments and memorials

APPENDIX E
HERITAGE IMPACT ASSESSMENT PHASES

1. Pre-assessment or Scoping Phase – Establishment of the scope of the project and terms of reference.
2. Baseline Assessment – Establishment of a broad framework of the potential heritage of an area.
3. Phase I Impact Assessment – Identifying sites, assess their significance, make comments on the impact of the development and makes recommendations for mitigation or conservation.
4. Letter of recommendation for exemption – If there is no likelihood that any sites will be impacted.
5. Phase II Mitigation or Rescue – Planning for the protection of significant sites or sampling through excavation or collection (after receiving a permit) of sites that may be lost.
6. Phase III Management Plan – For rare cases where sites are so important that development cannot be allowed.