



**DESTRUCTION PERMIT APPLICATION
REPORT
FOR
KANGALA COAL PROJECT**

UNIVERSAL COAL PLC

MARCH 2013

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Report Title: **Destruction Permit Application Report for Kangala Coal Project**

Project Number: **UNI2131**

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EXECUTIVE SUMMARY

Digby Wells Environmental (Digby Wells) was requested by Universal Coal Plc (Universal Coal) to collect and collate information required to complete a destruction permit application for a structure protected in terms of Section 34 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA). The structure was initially identified during the course of an Archaeological Impact Assessment (AIA) (Fourie & Fourie, 2009) within the project area of the Kangala Coal Project, Delmas, Mpumalanga Province.

Digby Well was contracted by Universal Coal to conduct an EIA to comply with the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002) for a Mining Right Application (MRA). The EIA/EMP was completed in 2009 and Environmental Authorisation was approved and the MRA was awarded for the Kangala Coal Project on the 27 August 2010 (DMR Ref no: MP 30/5/1/2/2/429 MR).

After completion of the EIA/EMP in 2009, Universal Coal applied for funding from RMB Bank. RMB Bank contracted an independent consultant to conduct a Due Diligence Assessment on the EIA/EMP. As a result, it was noted that a structure identified within the project area by the Archaeologist had not been sufficiently dealt with. It was further noted that a Destruction Permit Application would need to be completed in order for the project to continue. It would also seem as though the Archaeological Impact Assessment (AIA) had not been submitted to SAHRA for comment and further Terms of Reference.

A short study was thereafter conducted on the structure by Digby Wells in 2012 to ascertain the age and possible significance of the structure. It was found that the structure was indeed over 60 years old, however was in poor condition of preservation. A letter was drafted and uploaded to SAHRIS along with the original AIA (Fourie & Fourie, 2009) (Case ID: 1125), highlighting the structures' possible age, for comment from the Mpumalanga Provincial Heritage Agency (MPHRA). A Destruction Permit Application for Site 2 was recommended by the MPRHA (Please see Appendix A).

A historical background study was completed for the the structure as required by MPHRA. After consulting several sources such as the National Archives, historical aerial photographs and historical maps, it was found that the structure may be between 94 and 60 years old. A site visit was conducted to photograph and map the structure for recording purposes.



GLOSSARY OF ABBREVIATIONS AND TERMS

Abbreviation	Definition
AIA	Archaeological Impact Assessment
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
GIS	Geographical Information System
HRA	Heritage resources authority
MPRDA	Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002)
MPRHA	Mpumalanga Provincial Heritage Resources Agency
MRA	Mining Right Application
PPP	Public Participation Process
RMB	Rand Merchant Bank
SAHRA	South African Heritage Resources Agency
SAHRIS	South African Heritage Resource Information System



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1 INTRODUCTION

Digby Wells Environmental (Digby Wells) was requested by Universal Coal Plc (Universal Coal) to collate information required to complete a destruction permit application for a structure protected in terms of Section 34 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA).

The structure was initially identified during the course of an Archaeological Impact Assessment (AIA) (Fourie & Fourie, 2009) within the project area of the Kangala Coal Project, Delmas, Mpumalanga Province.

2 BACKGROUND INFORMATION OF PROJECT

2.1 Project Details

The proposed Kangala Coal Mine project is located on portion 1 and RE of portion 2 of the farm Wolvenfontein 244IR in the Delmas area of the Mpumalanga Province. The extent of the proposed project area is 951 hectares.

Digby Well was contracted by Universal Coal to conduct an EIA to comply with the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA) for a Mining Right Application (MRA). The EIA/EMP was completed in 2009 subsequent to which Environmental Authorisation was granted. The MRA for the Kangala Coal Project was awarded on 27 August 2010 (DMR Ref no: MP 30/5/1/2/2/429 MR).

Following Environmental Authorisation Universal Coal applied for funding from RMB. RMB contracted an independent consultant to conduct a Due Diligence Assessment on the EIA/EMP. As a result, it was noted that a structure identified within the project area by the Archaeologist had not been sufficiently dealt with. It was further noted that a Destruction Permit Application would need to be completed in order for the project to continue. Upon further review of the project by Digby Wells, it was found that the Archaeological Impact Assessment (AIA) (Fourie & Fourie, 2009) had not been submitted to the South African Heritage Resources Agency (SAHRA) for Statutory Comment in terms of Section 38(8) of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA).

A brief study was thereafter conducted on the structure by Digby Wells to ascertain the age and possible significance of the structure. The structure was found to be between 60 and 100 years old. As a result, the structure fell within the ambit of the Mpumalanga Heritage Resources Authority (MPRHA). A letter was drafted and uploaded to SAHRIS along with the original AIA (Fourie & Fouire, 2009) (Case ID: 1125), highlighting the structures' possible age, for comment from MPHRA. A Destruction Permit Application for Site 2 was recommended by the MPRHA (Please see Appendix B).

2.2 Description of Property and/or Affected Environment

2.2.1 Location Data

The project area is located on Portion 1 and Remaining Extent of Portion 2 of the farm Wolvenfontein 244 IR. The property is approximately 4 km south of Delmas, in the Victor Khanye Local Municipality of the Nkangala District Municipality, Mpumalanga Province. All relevant location and property details are summarised in

Table 2-1. Please see Plans 1-6 in Appendix A for plans of the project area, site and identified structures.

Table 2-1: Relevant information Location details

CADASTRAL INFORMATION	
Province	Mpumalanga Province
Magisterial District / Local Authority	Nkangala District Municipality
Municipality	Victor Khanye Local Municipality
Erf/Stand/Farm name and number:	Portion 1 of the farm Wolvenfontein 244 IR
1: 50 000 Map Sheet	2628BA
1: 10 000 Aerial Photo	303 Delmas (1953) photo number 303_006_00421
Cadastral co-ordinates: <i>(relative centre point of study area)</i>	South/LAT/Y: -26.197594
	East/LON/X: 28.669535
PROPERTY INFORMATION	
Site name:	Site 2 (Fourie & Fourie, 2009) SAHRIS Case ID: 1125
Current use of site/property:	No current use. Structure is abandoned and dilapidated.
Site type:	Historical farm werf (Winter & Baumann, 2005)
Title deed number	T34387/95
Date of title deed	23 November 1999
Surveyor-General Diagram Number	A1266/1926
Date of Surveyor-General Diagram	8 May 1926

2.3 Relevant Contact Details

Relevant contact details of the applicant, primary responsible agent/s and legal landowner are summarised in Table 2-2, Table 2-3 and Table 2-4 below respectively.

Table 2-2: Details of applicant

Name of applicant:	Universal Coal Plc
Contact person:	Minah Moabi
Address:	467 Fehrsen Street, Cnr Muckleneuk, Brooklyn, Pretoria, 0181

Tel. no:	(012) 460 0850
Fax no:	(012) 460 2417
Cell no:	076 431 3968
Email address:	m.moabi@universalcoal.com

Table 2-3: Details of Primary Responsible Agent

Name of Primary Responsible Agent:	Stefanutti Stocks
Contact person:	Fredrick Willem Strydom
Address:	Protec Park, Cnr Zuurfontein Avenue & Oranjerivier Drive, Kempton Park
Tel. no:	(011) 396 7536
Fax no:	(086) 218 9560
Cell no:	082 820 6228
Email address:	Freddie.strydom@stefstocks.com

Table 2-4: Details of Land Owner/s

Name of Land Owner:	Kallie-Madel Trsut
Contact person:	Kalli Schoeman
Address:	P.O Box 33, Delmas, 2210
Tel. no:	(013) 665 7700
Fax no:	(013) 665 1645
Email address:	brent@witklip.co.za

3 DESCRIPTION OF SITE

A site visit was conducted by two members of the Digby Wells Environmental Heritage Resources Management unit on 15 February 2013. The primary residential structure and other associated structures were photographed and mapped. All visible, remaining structures were recorded with a Trimble R4 GNSS differential GPS (accuracy 20 mm). The GPS data was incorporated into a GIS programme and site plans created, including a detailed layout of the main residential structure.

Site 2 was defined as a historical farm *werf* and comprises of various physical structures such as the main residential dwelling, three concrete foundations, a brick water tower and foundations of a reservoir illustrated in Plan 4 in Appendix A. A *werf* is an Afrikaans word for 'farmyard'. It is defined as the buildings on it, more than just the space itself. It is the roughly level, uncultivated but close-cropped open space on which the buildings of a farm complex are situated (Winter & Baumann, 2005). In general the structures were completely dilapidated and no associated deposits such as middens were noted.

Site 2 was situated on a gentle slope near a grove of various *Eucalyptus* species illustrated in Figure 3-1 below. The *werf* was surrounded by agricultural fields as indicated in Figure 3-1 and Plan 5 in Appendix A. Location and other relevant details are summarised in

Table 2-1 above. Each recorded structure or collection of features are described in detail below.



Figure 3-1: Eastern view of Site 2

3.1 Residence

A small section of farm wall measuring 2 m long is located 73 m north-east from the main residence. This could possibly be the remaining section of a boundary wall or fence of site 2. Figure 3-2 shows a possible entrance way comprising of four low walls situated directly 74 m east from the main structure.

The main residential structure illustrated in Figure 3-3 to Figure 3-6, as well as Plan 6, was a brick and mortar building. A total of six Blue Gum trees growing through three rooms of the structure as shown in Figure 3-4. Walls were constructed with fired clay brick indicated in Figure 3-7. The bricks are fired bricks due to the presence of vitrification within the material. The mortar used consists of cement with river sand inclusion indicated in Figure 3-7. The visible foundations provided an approximate surface area of 17 m x 8.5 m as indicated in Plan 4a. The exterior walls were constructed using the cavity-wall technique as seen in Figure 3-8. The walls were quite high, measuring 3.5 m high.

No existing electrical wiring or plumbing were identified within the structure. The roof and all roofing materials, including trusses were removed. The structure would have had wooden

flooring as evidenced by low brick foundations found throughout the floor area. No evidence of wooden floor boards was noted, indicating that these were also possibly removed. At least seven rooms were identified that included an entrance hall, kitchen, possible second bedroom, living room, main bedroom and a bathroom. The bathroom did not contain any evidence of an inside toilet.



Figure 3-2: Eastern elevation of the main structure. Note the entrance gate and water tower



Figure 3-3: Western elevation of the main structure at Site 2



Figure 3-4: Eastern elevation of the main structure at Site 2



Figure 3-5: Southern elevation of the main structure at Site 2



Figure 3-6: Northern elevation of the main structure at Site 2



Figure 3-7: Close up view of fired bricks with cement and riversand mortar used in the construction of the main structure



Figure 3-8: Close up of exterior cavity-wall at Site 2. Note metal wire reinforcing in the cavity.



The front door, as shown in Figure 3-5, is located on the northern side of the residential structure and leads into the entrance hall. The entrance hall measures 4 m x 2.5 m and a small section of wallpaper indicated in Figure 3-9, was identified on the western wall. The wall paper has a pattern consisting of brown wildflowers as shown in Figure 3-10.



Figure 3-9: Section of wallpaper on the western wall of the entrance hall at Site 2



Figure 3-10: Close-up of wallpaper from entrance hall of Site 2

The kitchen, identified by the remnants of a chimney indicated in Figure 3-11 and Figure 3-12, located on the eastern side of the entrance hall measured 4 m x 3 m. The eastern and southern walls of the kitchen have collapsed and a small section of plaster painted in light blue remained on the eastern wall.



Figure 3-11: North Elevation of site 2 and view of kitchen area. Note remnants of kitchen chimney and light blue paint indicated by the red arrows



Figure 3-12: Close-up of kitchen chimney with metal flat-bar reinforcing visible

The small room adjacent to the entrance hall measures 3 m x 2.5 m with concrete lintels above the door and window shown in Figure 3-13. These lintels are in very poor condition and seem to be extremely unstable.



Figure 3-13: Window and door lintels in the small room adjacent the kitchen at Site 2

The living room measured 5.5 m x 5.5 m and had a large window facing east. A wooden dado rail was noted approximately 2.5 m above the floor on the walls of the lounge, as indicated in Figure 3-14. A fireplace existed along the western wall. The hearth measured 1.5 m and 2.5 m wide and high shown in Figure 3-15. An air vent was also noted in the western wall as can be seen in Figure 3-16.



Figure 3-14: Section of wooden dado rail located approximately 2.5 meters above the floor level on the wall of the living room in Site 2



Figure 3-15: Fireplace located in living room in Site 2



Figure 3-16: Air vent located at the top of a wall in the living room in Site 2

The main bedroom measured 5.5 m x 4.5 m with an en-suite bathroom and a window on the eastern wall as indicated in Figure 3-17. A possible electrical switch was identified on the eastern wall of the main bedroom illustrated in Figure 3-18.



Figure 3-17: Western view of the living room and main bedroom



Figure 3-18: Remains of a switch on the eastern wall of the main bedroom at Site 2

The en-suite washroom measures 3 m x 2 m has the fragments of white tiles were found on the walls as shown in Figure 3-19. Figure 3-20 indicates a pipe inlet and outlet for the bath. The support for the bath (built-up section in the corner) is indicated in Figure 3-20.



Figure 3-19: Interior view of washroom with fragment of white tile. Note pipe outlets for sink



Figure 3-20: Interior view of the washroom with close up of bath support. Note the pipe inlet and outlet for the bath

3.2 Water tower and associated features

A brick water tower was situated 43 m north-east from the main structure. The brick water tower illustrated in Figure 3-21 is approximately 7 m high and its radius measures 1 m. The bricks used to construct the water tower are similar to those used in the residential structure. A water pump, borehole and reservoir foundation (2.7 m radius) are located adjacent to the water tower, as shown in Figure 3-22 to Figure 3-24. The reservoir foundation would have been part of a corrugated farm dam reservoir. A 10 m x 1.5 m long brick water trough is also located near the water tower as shown in Figure 3-25.



Figure 3-21: Brick water tower located north-east of main structure at Site 2



Figure 3-22: Borehole pump housing noted adjacent to water tower near borehole.



Figure 3-23: Borehole at Site 2 next to water tower.



Figure 3-24: Reservoir foundation located next to water tower at Site 2



Figure 3-25: Brick water trough

3.3 Outbuildings or possible workshop area

Figure 3-26 indicates one of concrete foundations measuring 10.3 m x 8.3 m. The second concrete floor measures 17.9 m x 10.9 m. The concrete floors may have been the foundations of a storage shed or workshop area. A brick structure measured 2 m x 2 m and is located north-east of the concrete floors indicated in Figure 3-27. The third foundation (6.1 m x 4.2 m) is situated adjacent to the main structure and very close to the outhouse toilet pit.



Figure 3-26: Large concrete floors located south-east of the main structure at Site 2



Figure 3-27: A small brick structure located north-east of the concrete floors

3.4 Yard or possible small stock area

A cleared area located 25.4 m south from the residential structure is surrounded by *Eucalyptus* species trees as shown in Figure 3-28, as well as Plan 5 and Plan 6. The area includes dilapidated foundations and concentrations of rocks which may be the remains of stock enclosures, as indicated in Figure 3-29.



Figure 3-28: Grove of various species of *Eucalyptus* trees south of residential structure



Figure 3-29: Concentration of rocks in open area that may indicate stock enclosures located south of the main structure at Site 2

4 PROPOSED TYPE OF ACTION

4.1 Type of work

Total demolition of the structure is proposed.

4.2 Motivation for proposed action

The structure is located in the centre of a topsoil discard dump that will be created during the operational phase of the Kangala Coal Mine. Site 2 will therefore be destroyed during construction. Results of consultation

A Public Participation Process (PPP) Report was conducted for the Kangala Coal Project (Digby Wells Environmental, 2009). No issues regarding heritage resources or Site 2 specifically were raised during the PPP process.

No local heritage conservation bodies were identified that may be active in the Delmas area, Victor Khanye Local Municipality.

5 HISTORICAL BACKGROUND

5.1 Methodology

The historical background of Site 2 was collated through desktop research that included surveys of relevant databases and repositories. This included:

- Archival research;
- GIS layering of relevant historical cartographic information sources;
- Historical title deed surveys on Windeed; and
- Review of relevant previous impact assessment reports.

5.2 Results

Site 2 may date to between 1919 and 1953; therefore it can be presumed that the site may date to between 94 and 60 years old. The farm Wolvenfontein was noted on the earliest available cartographic information source, Major Jackson 106 Heidelberg Imperial (1900-1919). Later maps reflect the farm number in addition to the farm name: Wolvenfontein 468 (Major Jackson 26 Heidelberg Transvaal-Degree-Sheets 1902-1909) as shown in Figure 5-1. The earliest Surveyor General diagram illustrated in Figure 5-2 (quality of document due to Surveyor-General image) that was found was dated to 8 May 1926, correlating with the 1909 Major Jackson map. The owner of the property at that time and indicated on the SG diagram was J.B Wolmorons.

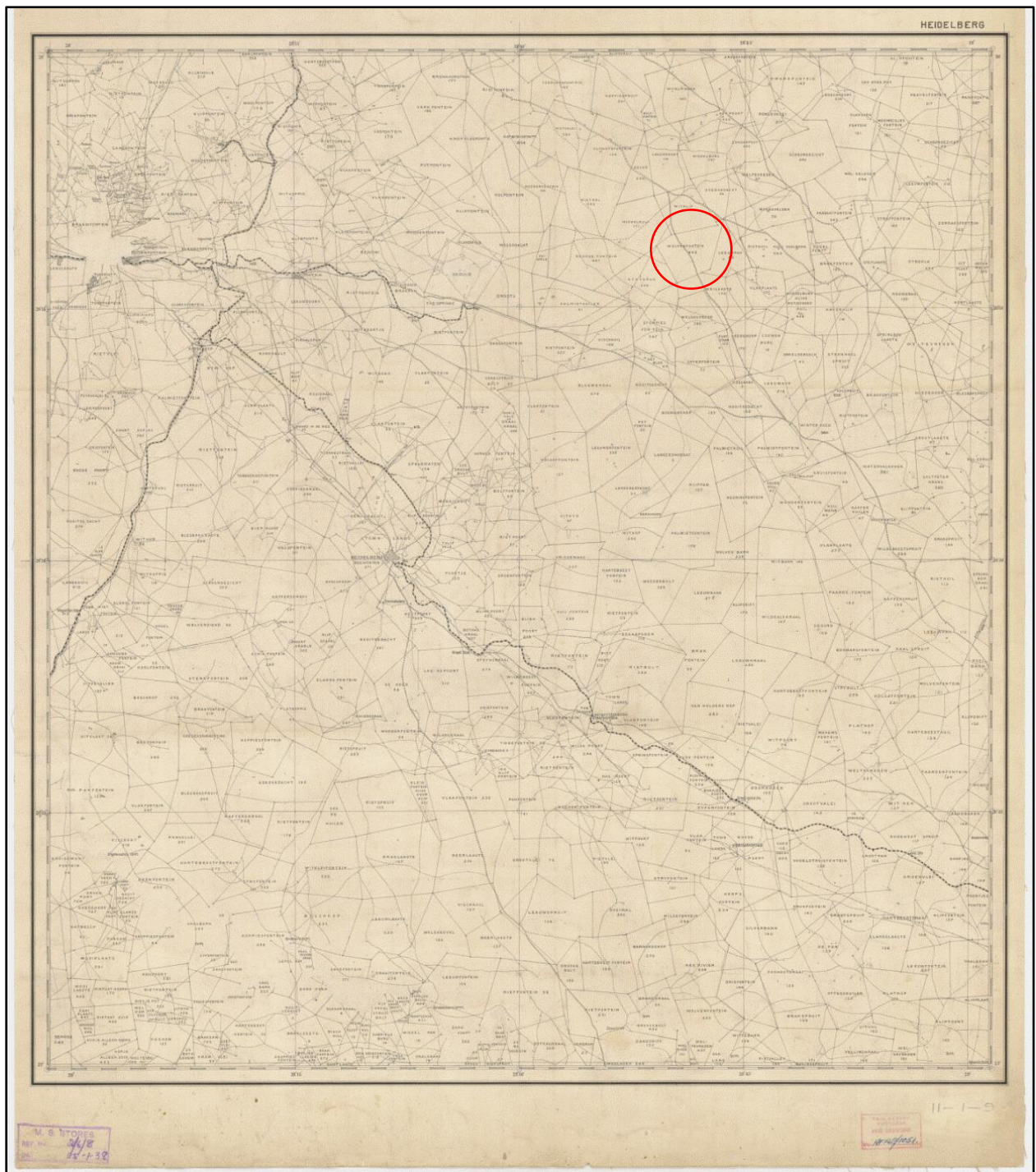


Figure 5-1: Major Jackson 26 Heidelberg Transvaal-Degree-Sheets 1902-1909 showing the property Wolvenfontein 468

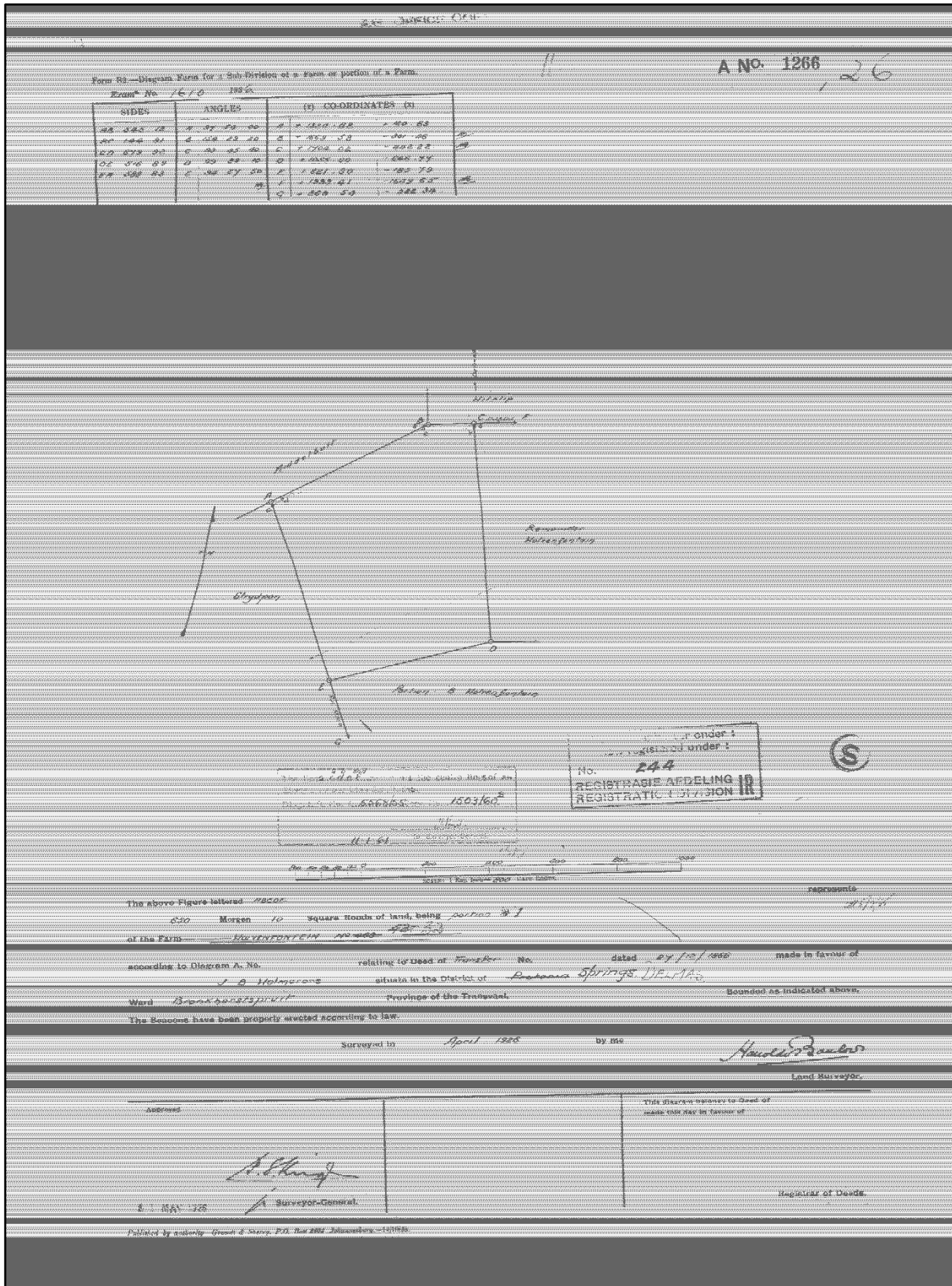


Figure 5-2: Chief Surveyor-General image A1266/1926 showing Wolvenfontein 468

A 1953 aerial photograph illustrated in Figure 5-3 shows Site 2 with well-established fields, roads and trees within its surrounds. This aerial photograph confirms that the structure and its surrounding infrastructure are older than 60 years old.



Figure 5-3: Structure identified by Fourie (2009) present on an aerial photograph dating to 1953 (303_006_00421)

The earliest title deed was identified during a WinDeed Database survey. This title deed was dated to 1927. This date correlates with the SG diagram dated 1926. However, the SG diagram was drawn in favour of Wolmarans who may have been the first registered land owner. The title deed was in the name of Maria Katharina Eloff. This may indicate that parts of the site, especially the residence, were constructed only after 1926.

The current title deed is held by the Kallie-Madel Trust, details are provided in Table 5-1. (See Appendix C for current title deed). This is in process of being transferred to Universal Coal.

**Table 5-1: Details of title deeds for Wolvenfontein 244IR**

Owner name	Year	Document number	Description	Microfilm Reference
ELOFF KATHARINA MARIA	1927	T9124/1927	Transfer	1993 0960 2070
ELOFF CHRISTOFFEL FREDERIK 1/3	1993	T74811/1993	Transfer	1999 1087 1644
PITTIUS ANTONIA CAROLINA AUGUSTINA GEY VAN	1993	T74811/1993	Transfer	1999 1087 1644
GAUTSCHI JEANNE	1993	T74811/1993	Transfer	1999 1087 1644
FRIKKIE ELOFF TRUST	1995	T34387/1995	Transfer	1999 1087 1639

A survey of archive records in the National Archives (TAB - National Archives Repository Public Records of former Transvaal Province and its predecessors as well as of magistrates and local authorities) did not yield any supplementary information that contributed to the historical background of the site.

6 CONCLUDING REMARKS

In conclusion, the site identified by Fourie and Fourie (2009) may date between 94 and 60 years old. The main structure is in poor condition, with little associated historical artefacts that may assist in further dating the site. The site will be impacted by the Kangala Project and is recommended that it be destroyed.

7 REFERENCES

7.1 Literature

- Bromilow, C. (2010). *Problem Plants and Alien Weeds of South Africa*. Pretoria: Briza Publications.
- Digby Wells Environmental. (2009). *Public Participation Process Report for Kangala Coal Mine (Universal Coal Plc)*. Randburg: Digby Wells Environmental.
- Fourie, W., & Fourie, M. (2009). *Archaeological Impact Assessment (AIA) for the Proposed Kangala Coal Mine on Portions 1 and Remaining Extent of Portion 2 of Wolvenfontein 244 IR in the Delmas Area, Mpumalanga Province (Universal Coal Plc)*. Randburg: Digby Wells Environmental.
- Winter, S., & Baumann, N. (2005). Guideline for involving heritage specialists in EIA processes: Edition 1. *CSIR Report No ENV-S-C 2005 053 E*. Cape Town: Provincial Government of the Western Cape, Department of Environmental Affairs & Development Planning.

7.2 Reports

- Fourie, W., & Fourie, M. (2009). *Archaeological Impact Assessment (AIA) for the Proposed Kangala Coal Mine on Portions 1 and Remaining Extent of Portion 2 of Wolvenfontein 244 IR in the Delmas Area, Mpumalanga Province (Universal Coal Plc)*. Randburg: Digby Wells Environmental.

7.3 Databases

WinDeed Database

National Archives of South Africa (TAB - National Archives Repository; Public Records of former Transvaal Province and its predecessors as well as of magistrates and local authorities)



Appendix A: Plans for Site 2



Appendix B: MPRHA Destruction Permit Application



Appendix C: Title Deed for Wolvenfontein 244IR



Appendix D: Curriculum Vitae of Specialists