



4 May, 2022

Att: Elana Mostert
Enviro Works
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Dear Elana,

**VERIFICATION REPORT, PROPOSED KHAUTA SOLAR PV CLUSTER NEAR WELKOM,
MATJHABENG LOCAL MUNICIPALITY, FREE STATE PROVINCE**

1. Introduction & aim

An Archaeological Heritage Impact Assessment was conducted by ACRM for the proposed Khauta Solar PV Cluster on various farms surrounding Riebeeckstad (Matjhabeng Local Municipality) near Welkom, in the Free State Province (Figure 1).

The findings presented in the Verification Report are the result of a field study conducted in April 2022.

The aim of the field study is to assess the archaeological and heritage sensitivity of the proposed project area, and to identify any potential constraints in the final layout of the development proposal.

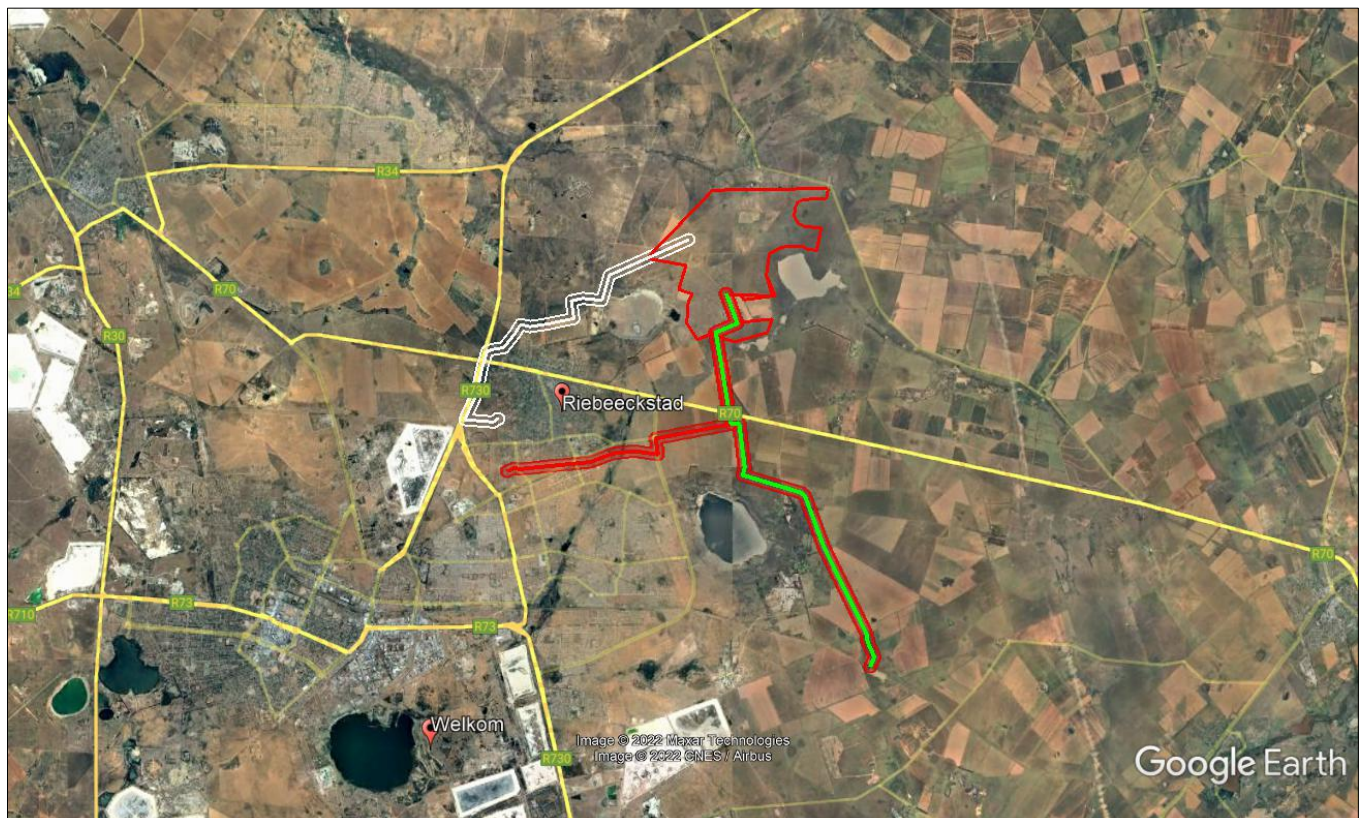


Figure 1. Google Earth satellite map of the study area near Welkom in the Free State Province



2. The development proposal

The development proposal entails the following key components (Figure 2).

- 3 x 100MW Solar PV facilities
- 2 x line route options for a new 132kV overhead powerline
- 2 x 19.9MW Solar PV facilities
- 1 x line route option for a new 44kV overhead powerline (150m corridor to be assessed on either side of the proposed line).



Figure 2. Proposed layout of the Khauta Solar PV (SPV) Cluster near Welkom in the Free State Province

3. Study Approach

A field assessment of the proposed Khauta Solar PV facility was conducted in March, 2022.

The proposed 2 x line route options for a new 132kV overhead powerline, and the proposed 1 x line route option for a new 44kV overhead powerline were also investigated. This included a 150m wide corridor for each of the proposed options.

The assessment was conducted on foot and by vehicle.

Heritage resources were recorded using a hand-held GPS unit set on the map datum WGS 84. A track path was also logged.



A desk top study has previously been conducted to assess the heritage context of the study area¹.

4. Constraints & Limitations

Mobility was constrained by recent heavy rains in the area.

More than 90% of the proposed Solar PV site was covered in thick grazing grass, resulting in low archaeological visibility.

Sections of the proposed 132kV and proposed 44kV line route options were also covered in dense bush and vegetation also resulting in low archaeological visibility.

Indications, however, are that this has not significantly affected the results of the heritage study.

5. Level of confidence

The Level of confidence is High.

6. Land Parcels

The land parcels on which the PV Solar Energy Farm is proposed, is shown in Table 1

Farm Name	Farm Number	Portion
Commandants Pan	382	9
Nooitgedacht	74	12
Tafel Baai	413	0
Erfdeel	188	1
Klein Koppie Aleen	182	1
Klein Koppie Aleen	182	Rem extent
Klein Koppie Aleen	182	2
Kopje Alleen	181	3
Kopje Alleen	181	1
Kopje Alleen	181	Rem extent
Wonderkop	15	Rem extent
Wonderkop	15	6
Erfdeel	188	4

Table 1. Khauta Solar PV Cluster: Affected Farms

¹ Kaplan, J. 2021. Desktop heritage screening study, the proposed Khauta Solar PV Cluster near Welkom, Free State Province. Report prepared for Enviro Works. ACRM, Cape Town



7. Results of the field assessment

Track paths and waypoints of heritage resources recorded during the study is presented in Figure 3.

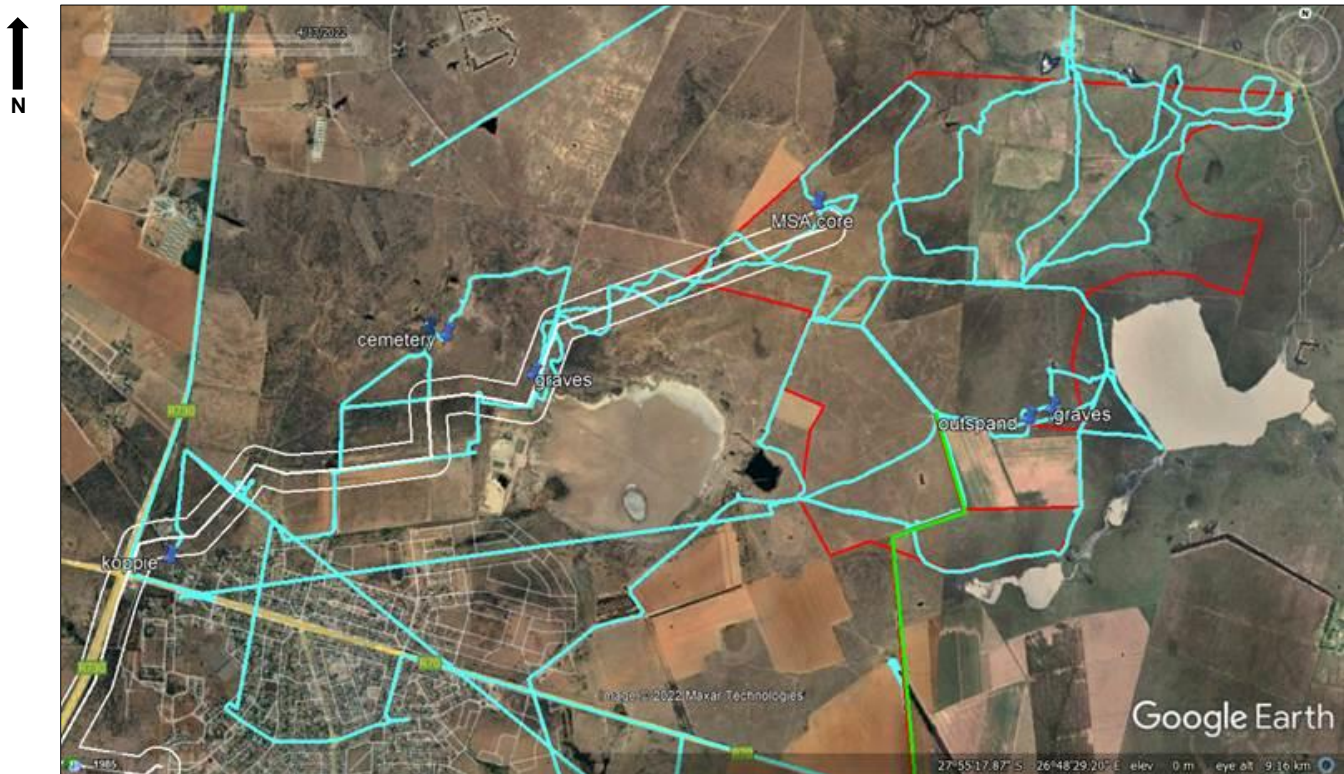


Figure 3. Track paths (in blue) and waypoints of heritage remains encountered during the study

6.1 Stone Age tools

A Middle Stone Age² (MSA) quartzite core (Point 0016) was recorded alongside the proposed 44kV powerline corridor, on the Farm Kopje Alleen 81 (Figures 4 & 5).

There is barely any surface stone covering the proposed Solar PV site.

There are no significant landscape features such as rocky outcrops or kopjes, on the site.

The isolated context in which it was found, means that remains have been graded as having *low* (3IV) archaeological significance.

² A term referring to the period between 200 000 and 40 000 years ago

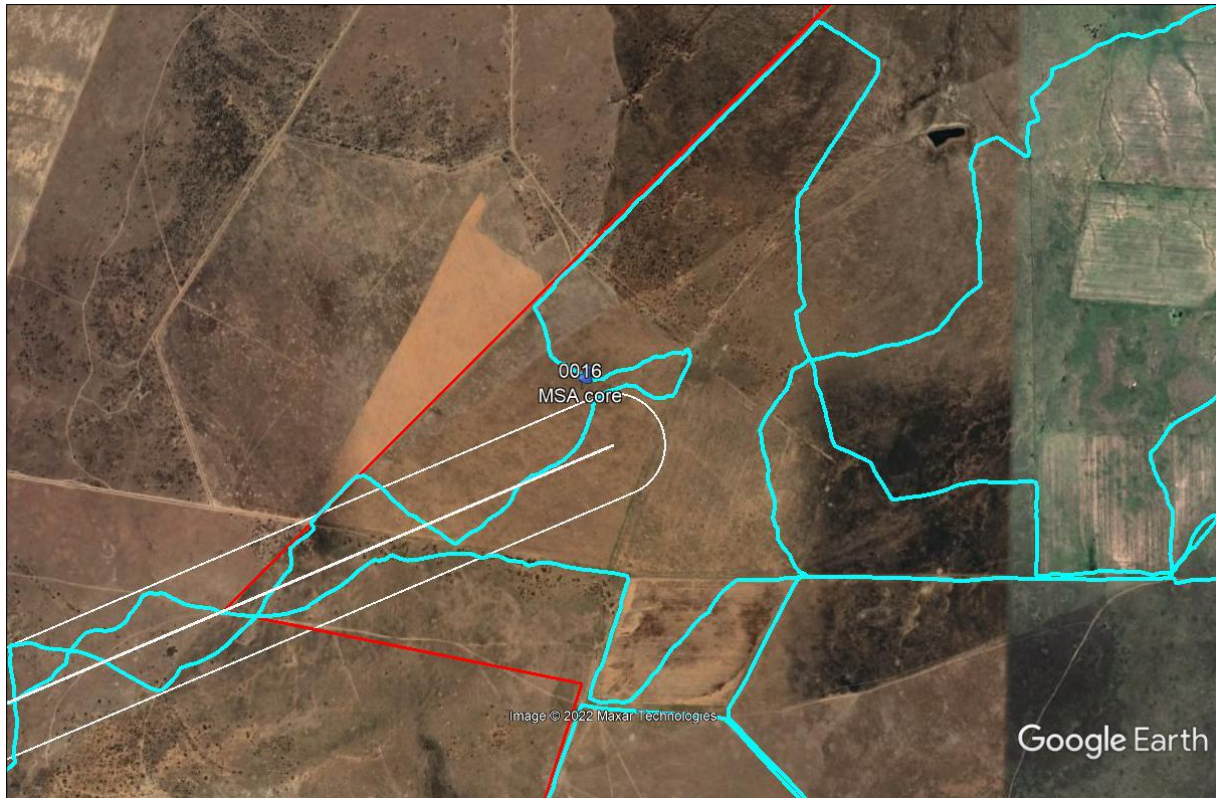


Figure 4. Waypoint of Middle Stone Age Core (Point 0016) on the Farm Kopje Alleen 81. Trackpaths in blue

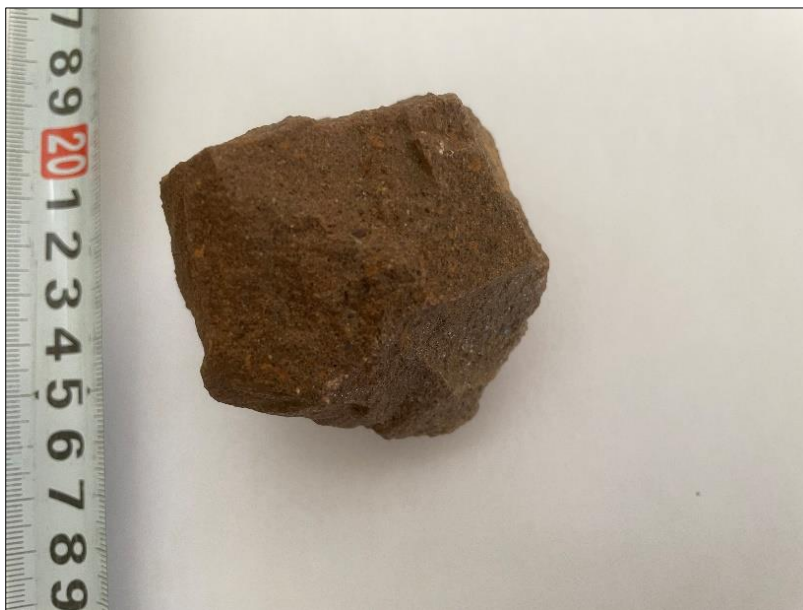


Figure 5. MSA core (Point 0016). Scale is in cm



6.2 Graves/graveyards

A graveyard (Point 0026) was recorded on the Farm Commandants Pan 382/9, \pm 500m east of the edge of the pan. Approximately 40-50 barely visible graves were counted in an area measuring about 30 x 40m in extent. The majority of graves comprise low mounds of clay and stones without headstones or footstones. Several graves with headstones were also identified, including a grave that has been fenced off and slightly apart from the others (Figures 6 & 7).

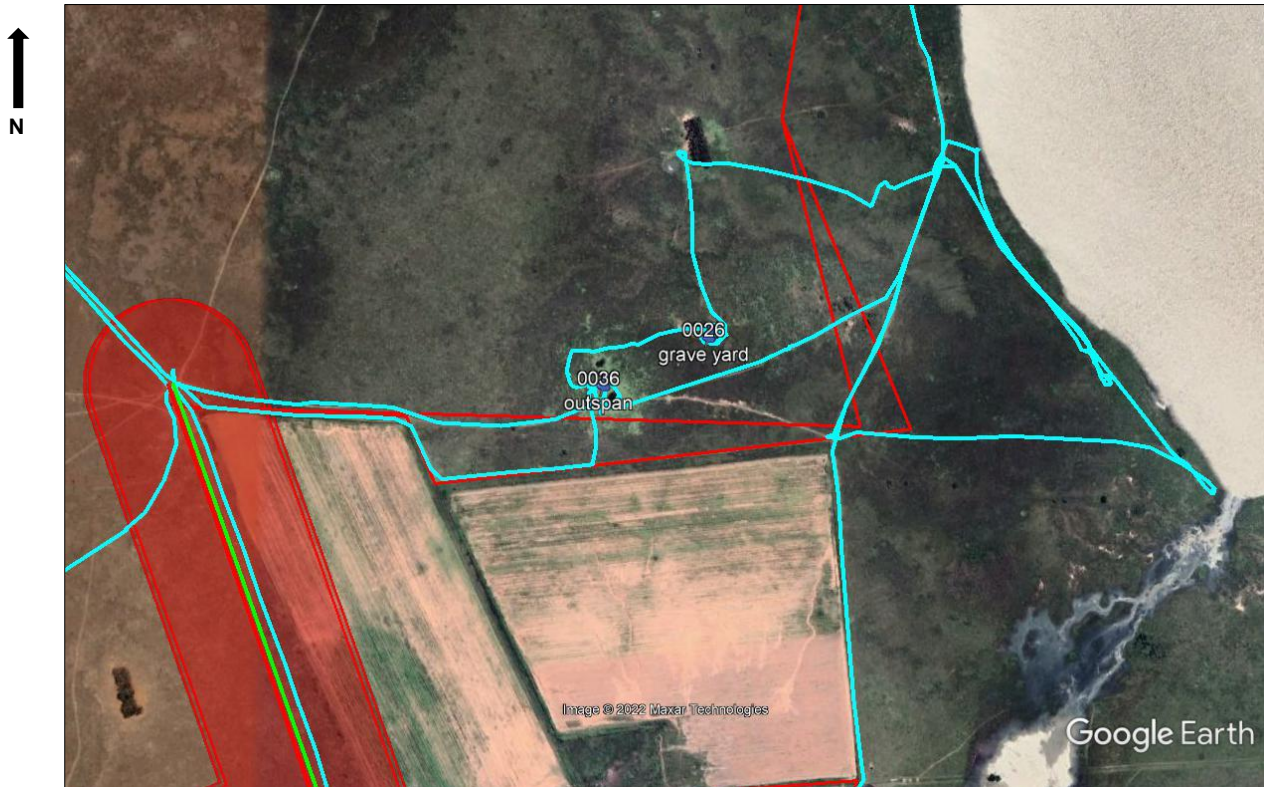


Figure 6. Waypoint of graveyard (Point 0026) and Outspan (Point 0036) on the Farm Commandants Pan 382/9 . Trackpaths in blue



Figure 7. Graveyard (Point 0026) on the Farm Commandants Pan 382/9. View facing south east. Arrow indicates fenced off grave



Two graves (Point 0096) were also recorded in the proposed 44kV route option on the farm Klein Koppie Aleen 182/1 (Figures 8 & 9). Both graves contain headstones but are barely visible in the long grass. According to the farm owner, Mr Chris Gouws (pers. comm. April 2022), there were previously three graves identified, but the remains of one of the deceased was removed more than 10 years ago and buried elsewhere in Riebeeekstad or Welkom.

Graves and graveyards are rated as having high (3B) significance because of their social value.

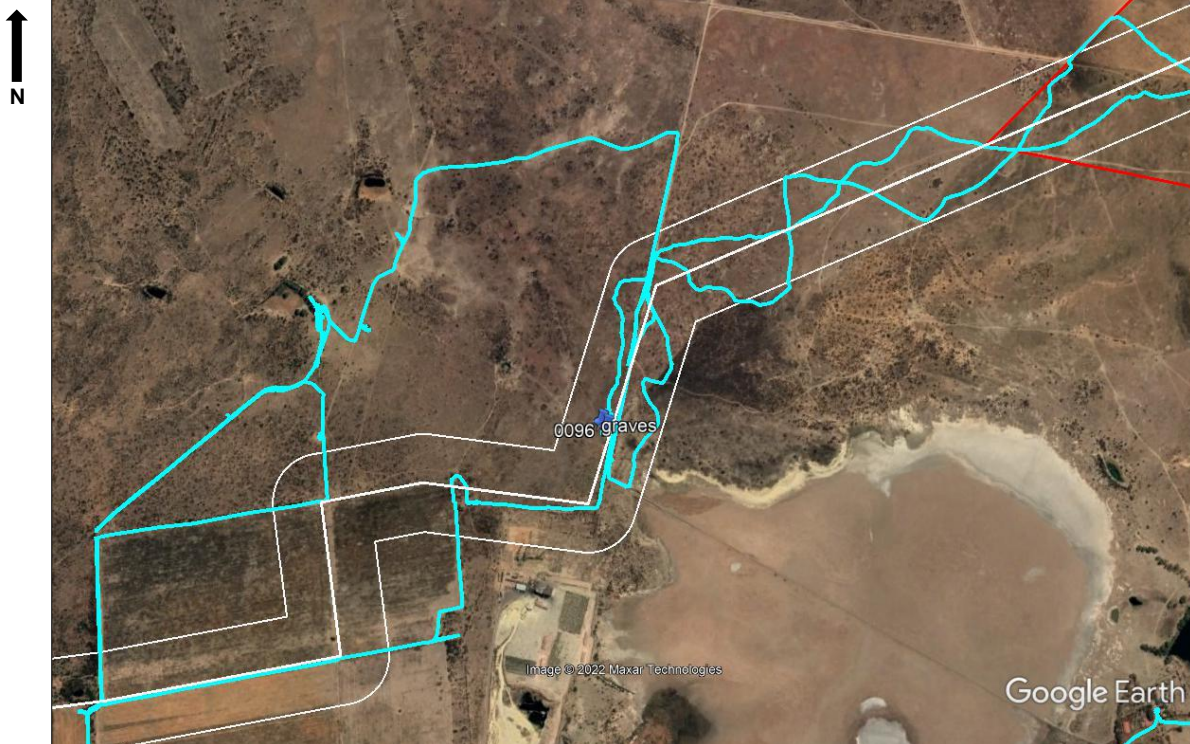


Figure 8. Waypoint of Black graves (Point 0096) in the proposed 44kV powerline servitude on the Farm Klein Koppie Aleen 182/1. Trackpaths in blue



Figure 9. Graves (Point 0096). Arrows indicates the 2 headstones on the Farm Klein Koppie Aleen 182/1.



6.3 Outspan

An Outspan was identified on the Farm Commandants Pan 382/9, about 200m east of the graveyard/Point 0036 (Figure 10 & refer to Figure 6). The Outspan was pointed out to the heritage specialist by Mr Johan van Merwe who currently leases the farm from the landowner. Three large trees on the flat hilltop 'mark' the site.

The following narrative was, recounted by Mr van der Merwe, and has apparently been passed down through generations and appears to be fairly widely known. The account, however, could not be verified.

According to Mr van der Merwe (pers. comm. April 2022), Boers fleeing from the British (date unknown) outspanned on Commandants/ Kommandantspan Pan and watered their cattle at the pan. A scout spotted the British coming over the hill in the distance and the Boers (men, women & children) retreated to the 'Koppie' which is on the edge of the town of Riebeekstad. But not before the women were told to bury 'the treasure' (apparently Kruger Rands). The Boers fought valiantly but were eventually all killed defending the Koppie.

Mr Chris Gouws (pers. comm. April 2022) of the Farm Klein Koppie Aleen 182/1 recounted a similar narrative, but according to Mr Gouws, no one was killed on the Koppie.

According to Mr Louis Venter of the War Museum in Bloemfontein (pers. comm. May 2022), there are no reference to any Anglo Boer War skirmishes in the area.

The area surrounding the Outspan was searched where the base of a rusted potjie pot was noted. No other remains were found.



Figure 10. Outspan (Point 0036) on the Farm Commandants Pan 382/9. View facing north east.



6.4 Iron Age

No evidence of any Late Iron Age³ archaeological heritage were noted during the field assessment, which appears to be absent from the study area.

6.5 Anglo Boer War

The second Anglo-Boer War (1899-1902) played a significant role in South African History, particularly in the interior of the country, where many battles were fought between British and Boer forces.

No evidence of any Anglo-Boer War battlefield sites, war graves or memorials were encountered during the field study.

According to Mr Louis Venter of the War Museum in Bloemfontein (pers. comm. November 2021), there are no references to Commandants pan or Kommandantspan in the *Times History*.

As indicated above, there are no reference to any skirmishes in the area either (Louis Venter pers. comm).

7. Sensitive areas

The following sensitive heritage areas have been identified:

1. The graveyard (Point 0026) and Outspan (Point 0036) on the Farm Commandants Pan 382/9.
2. The graves (Point 0096) in the proposed 44kV powerline route on the Farm Klein Koppie Aleen 182/1.
3. The 'Koppie' on the edge of the town of Riebeeckstad, overlooking the Farm Klein Koppie Aleen 182/1, may potentially have cultural, spiritual or social significance. This should be explored further in the Public Participation Process.

8. 'No Go' Areas

As long as the recommendations contained in the Verification Report are followed no, 'No Go' Areas have been identified in the heritage study.

9. Conclusion

Indications are that the site for the proposed Khauta Solar PV Project in Riebeeckstad, near Welkom is not a sensitive, vulnerable or threatened heritage landscape.

This includes both proposed 2 x line route options for a new 132kV overhead powerline, and x 1 proposed 44kV powerline route options.

The overall impact of the proposed Khauta Solar PV Cluster on heritage resources is rated as being Low.

Therefore, there are no objections, on heritage grounds, to the project proceeding.

³ A term referring to the history of Black Farming communities in southern Africa during the last 1000 years



10. Recommendations

Regarding the proposed Khauta Solar PV Project near Welkom, Free State Province, the following recommendations are made:

1. The graveyard (Point 0026) on the Farm Commandants Pan 382/9 must be avoided. A 50m buffer around the graveyard is proposed. The site must be fenced off and protected throughout the Construction, Operational and Decommissioning Phase of the development.

The applicant must try and establish 'ownership' of the graves and consult with surviving family members.

2. The Outspan (Point 0036) on the Farm Commandants Pan 382/9 must be avoided. A 150m wide buffer is proposed. The site (at the highest elevation on the farm) commands a 'Sense of Place' in the surrounding Cultural Landscape.

3. Graves (Point 0096) in the proposed 44kV powerline route option on the Farm Klein Koppie Aleen 182/1 must be avoided. Graves are protected by various legislation, including the National Heritage Resources Act (Act 25 of 1999). The best option is *in-situ* preservation of grave sites. Should this not be possible, a standard grave relocation process including a detailed social consultation process with former or present residents, must be undertaken. Graves will have to be removed under a permit issued by the South African Heritage Resources Agency (SAHRA), following the social consultation process.