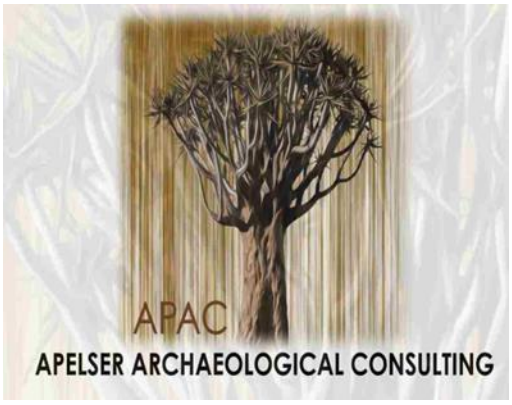

Comprehensive and Professional Solutions for all Heritage Related Matters

CK 2006/014630/23 **VAT NO.: 4360226270**

A SHORT REPORT ON THE PRELIMINARY MAPPING OF A STONE WALLED LATE IRON AGE SITE IMPACTED ON BY THE DEVELOPMENT OF THE ESKOM TUBATSE SWITCHING STATION, NEAR STEELPOORT IN THE LIMPOPO PROVINCE

For:

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REPORT: **APAC013/48**

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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.

SUMMARY

APelser Archaeological Consulting was appointed by Savannah Environmental (Pty) Ltd, on behalf of ESKOM, to undertake the Phase 2 Archaeological Mitigation (Excavations & Mapping) of a Late Iron Age (LIA) stone walled settlement site that will be impacted by the development of the Tubatse Switching Station, forming part of ESKOM's Steelpoort-Marble Hall Integration Project. The settlement site was identified by Van Schalkwyk in 2012, and reported on in an amended report in January 2013.

As part of the mitigation work APELSER ARCHAEOLOGICAL CONSULTING was requested to undertake a preliminary mapping exercise in order to identify all possible settlement features that could be negatively impacted by ESKOM's Geotechnical test pits, done prior to the construction of the Substation and related infrastructure, so that the geotechnical pits can be planned and their positions plotted in order to minimize any negative impacts on the archaeological site and cultural material deposit. The identification of features that will form the focus of the Phase 2 archaeological excavations also formed part of this mapping exercise.

Once a Final Letter of Approval from ESKOM (as landowner) has been received the Archaeological Excavation Permit will be applied for. Once this has been issued the physical archaeological work will be undertaken and a final report submitted to SAHRA in order to obtain a Demolition Permit.

CONTENTS

1. INTRODUCTION

APelser Archaeological Consulting was appointed by Savannah Environmental (Pty) Ltd, on behalf of ESKOM, to undertake the Phase 2 Archaeological Mitigation (Excavations & Mapping) of a Late Iron Age (LIA) stone walled settlement site that will be impacted by the development of the Tubatse Switching Station, forming part of ESKOM's Steelpoort-Marble Hall Integration Project. The settlement site was identified by Van Schalkwyk in 2012, and reported on in an amended report in January 2013.

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The site that will be affected by the development consists of stone built agricultural terraces, livestock enclosures (kraals), granary platforms and possible hut bays. The site forms part of the stone walled settlement identified during previous Heritage studies by Van Schalkwyk and numbered T/12-14 (with the T12 site the one directly impacted by the substation development). The study area is located on Portion 5 of the farm Luipershoek 149JS.

2. TERMS OF REFERENCE

The Terms of Reference for this study were to:

- map the stone walled site situated in the area where the Tubatse Switching Station and related infrastructure will be located in order to determine the impact of the development on the site and significant features located on it

- to provide a map of the site and its features for the purposes of ESKOM's Geotechnical test trenching so that the positioning of the geotech pits can be planned in order to have the least negative impact on the archaeological site and cultural deposit

- to determine the way forward in terms of the Phase 2 Archaeological Mitigation of the site so that the development can continue and an eventual Destruction Permit for the site can be obtained.

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).

3.1The National Heritage Resources Act

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

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

The national estate includes the following:

- Places, buildings, structures and equipment of cultural significance
- Places to which oral traditions are attached or which are associated with living heritage
- Historical settlements and townscapes
- Landscapes and features of cultural significance
- Geological sites of scientific or cultural importance
- **Sites of Archaeological** and palaeontological **importance**
- Graves and burial grounds
- Sites of significance relating to the history of slavery
- 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:

- The construction of a linear development (road, wall, power line, canal etc.) exceeding 300m in length
- The construction of a bridge or similar structure exceeding 50m in length
- Any development or other activity that will change the character of a site and exceed 5 000m^2 or involve three or more existing erven or subdivisions thereof
- Re-zoning of a site exceeding 10 000 m^2
- 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 andwhich 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):

- destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;
- destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;
- 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
- 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.
- 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:

- ancestral graves
- royal graves and graves of traditional leaders
- graves of victims of conflict
- graves designated by the Minister
- historical graves and cemeteries
- 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:

- 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;
- 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
- 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**).

Unidentified/unknown graves are also handled as older than 60 until proven otherwise.

3.2The 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

The Heritage Walkdown Survey report compiled by Dr. Johnny van Schalkwyk was utilized to obtain background information on the area and site. The details of the report are contained in the Reference Section of this document.

4.2 Field survey

The site was visited on two occasions, with the first a superficial visit during May 2013 together with members of ESKOM's Geotechnical Team and the second during early June 2013 with members of ESKOM's Environmental section. It was during this second visit that the preliminary mapping of the site was undertaken.

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. **This aspect will be dealt with during the Phase 2 archaeological work.**

4.4 Documentation

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

5. DESCRIPTION OF THE AREA

The larger study area (for the Steelpoort-Marble Hall 400kV Power line and Steelpoort Integration projects) involves two sections of power line corridors, most of which follows existing corridors. The longest power line runs eastwards from south of Marblehall, across the Nebo plateau, across the Lulu Mountains and down into the Steelpoort River valley, where it is proposed to develop a substation. The second line runs from this substation in a north-westerly direction to the farm Syferfontein 136JS, where a new substation will be constructed. To be expected with such a large study area, the environment changes drastically from west to east. The west forms part of a Highveld area typified by an undulating landscape. Going down the escarpment to the middle veld, the area is typified by mountains. In contrast, the eastern section is marked by mountains and hills, creating a broken type of environment (Van Schalkwyk, 2013:2).

The Tubatse Switching Station area forming part of this study is located on Portion 5 of the farm Luipershoek 149 JS, and is situated in the Steelpoort Valley around 40km west of Steelpoort. The topography of the site is relatively flat, although very rocky, and is surrounded by mountain ranges (Lulu Mountain). Dense tree cover and grass makes identifying sites and features difficult, although the site had been cleared of grass prior to the site visits. This assisted the archaeologist in identifying settlement features and conducting the preliminary mapping.

The site is located at approximately S25.11248 E29.82557.

Figure 1: Google image of study area location (Google Earth 2013).

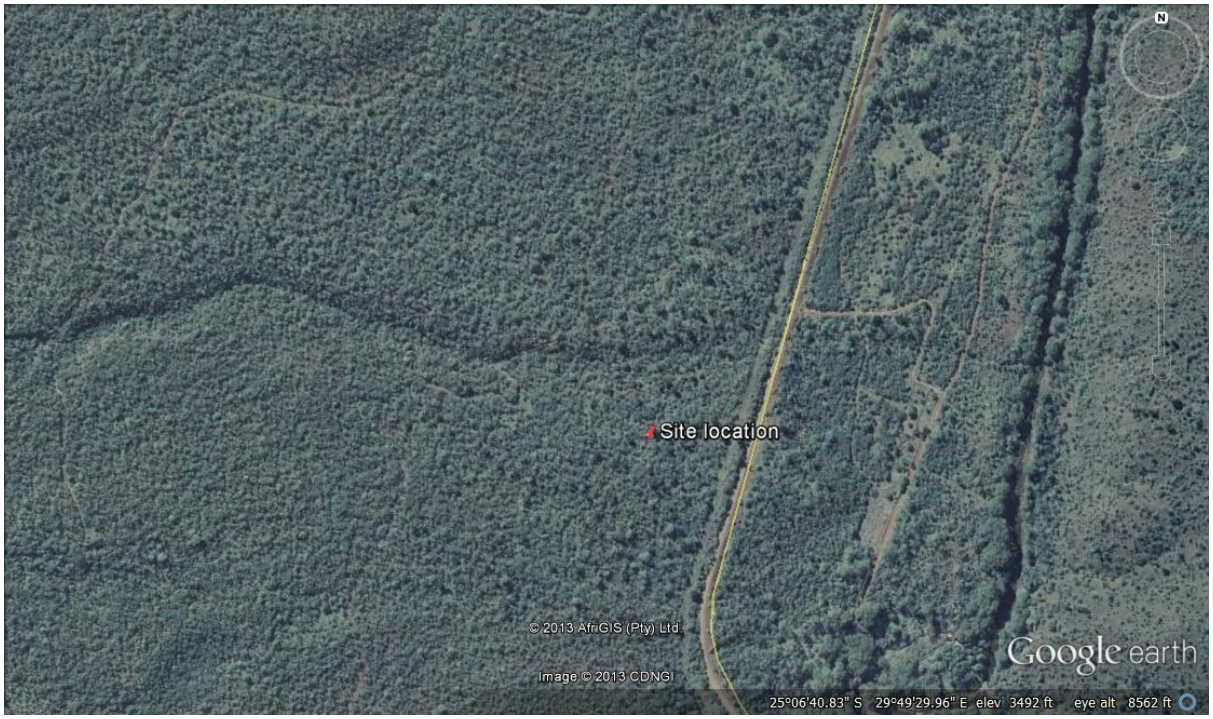

Figure 2: Closer aerial view of site location. Note the dense tree cover. Google Earth 2013.

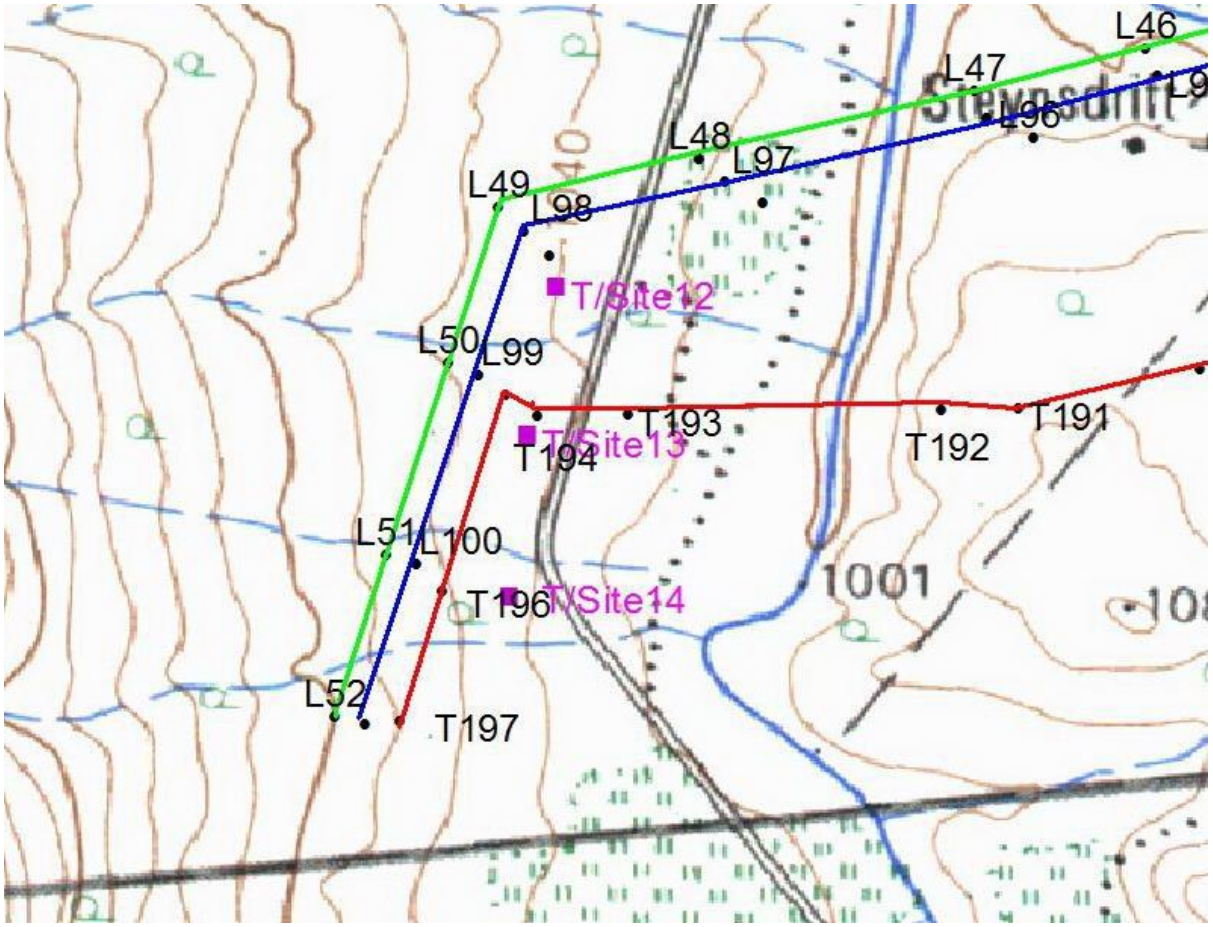

Figure 3: Topographic location of sites T12-14. Note the power line corridors. T12 is where the switching station is to be developed (From Van Schalkwyk 2013:p.7).

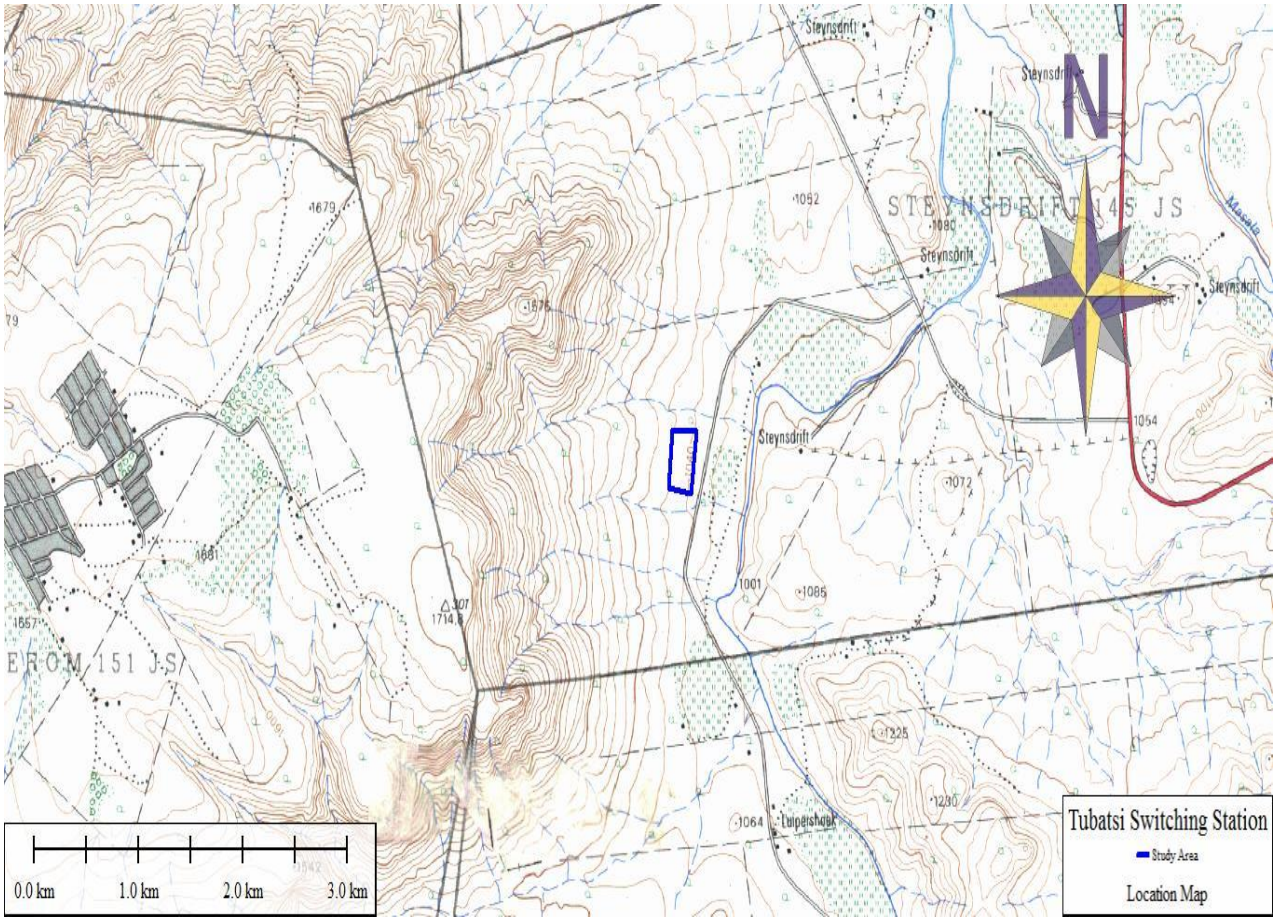

Figure 4: Another topographic map indicating the positioning of the switching station area.

Figure 5: A section of the site. Note the mountain ranges in the background.

Figure 6: Another view of a section of the area. Note the tree cover. The grass had been cut making visibility easier and exposing the stone walled features.

6. DISCUSSION

As mentioned earlier, the site that will be impacted on by the development of the Tubatse Switching Station was identified in late 2012 by Van Schalkwyk during a Heritage Walkdown. It forms part of a larger Late Iron Age (LIA) stone walled settlement complex, numbered T12-14.

Sites 13 & 14 represent a large settlement site. It dates to the Late Iron Age and consists of homestead areas, public areas such as a male gathering place and livestock enclosures (cattle and other smaller livestock). It measures approximately 500 X 400 meters (north/south by east/west), with a small section on the western side of the road. Site 12 (the site impacted by the development) represents the agricultural terracing and fields of the former, although some homestead areas can also be identified.

Van Schalkwyk indicated that the significance of the settlement site was High on a Regional level (Grade III). He recommended that if the substation location cannot be moved away from the archaeological site, that the site should be excavated in full by an archaeologist. This would involve the documentation (mapping and photographing) of all features, as well as the archaeological excavation of sufficient features to fulfill requirements as laid down by SAHRA. A permit will have to be obtained from SAHRA for these purposes prior to the development commencing.

The preliminary mapping of the site (T12) focused on determining the nature of the settlement, types of features present, as well as to mark significant features and areas that had to be avoided by the geotechnical test trenches planned for the development. It also aimed at locating features that will be focused on during the archaeological excavations to be completed as part of the Phase 2 Mitigation. It has to be mentioned that although the actual Switching Station footprint only measures 120m x 60m x 30m,

related infrastructure including the access road and other structural developments forms part of the development and the area impacted on is therefore much larger. The total area cleared by the ESKOM team prior to the mapping was therefore focused on during this session.

Nearly the whole area is covered by features related to the settlement, with stone walled agricultural terracing, stone cairns (granary platforms), small and large enclosures (for livestock) and possible hut (residential) bays. With agricultural terracing forming a large part of the site, and with the potential of disturbing significant archaeological deposits on the terraces being fairly low, it was decided to focus the mapping exercise on determining those features and areas on the site that could potentially contain highly significant deposits such as livestock and residential (hut) enclosures and granaries and that need to be avoided during the geotechnical testing. These features were plotted on a map and will help in planning the positioning of the geotechnical pits.

The features that were identified (and need to be avoided) will also be the ones that will be focused on by the excavations during the Phase 2 Mitigation. This includes the livestock enclosures, hut bays and granary platforms. A number of these will be excavated and documented in detail during the excavations. These features would contain cultural material consisting of pottery, faunal (animal bones) remains and others that will aid in providing a time-frame of settlement, help in reconstructing material and social economy, cultural identity of the settlement's occupants and settlement organization.

As the area that is covered by the LIA site is fairly large, detailed mapping was not possible. It was decided that once the Geotechnical mapping has been completed and the physical test trenching is undertaken that this activity will be monitored and that detailed mapping of the site will be undertaken in conjunction with the ESKOM surveyors in order to produce a detailed plan of the site. The excavations planned on the site will aim at recovering as much cultural material and data as possible in order to facilitate the interpretation and reconstruction of the cultural history of the site. Once this has been completed a Destruction Permit will be applied for in order for the development to continue.

Figure 8: A view of the agricultural terracing found on the site.

Figure 9: Stone walling on the site. This is a circular enclosure that could be a livestock (cattle) kraal.

Figure 10: A granary stand/platform on the site.

Figure 11: A lower grinding stone on the site.

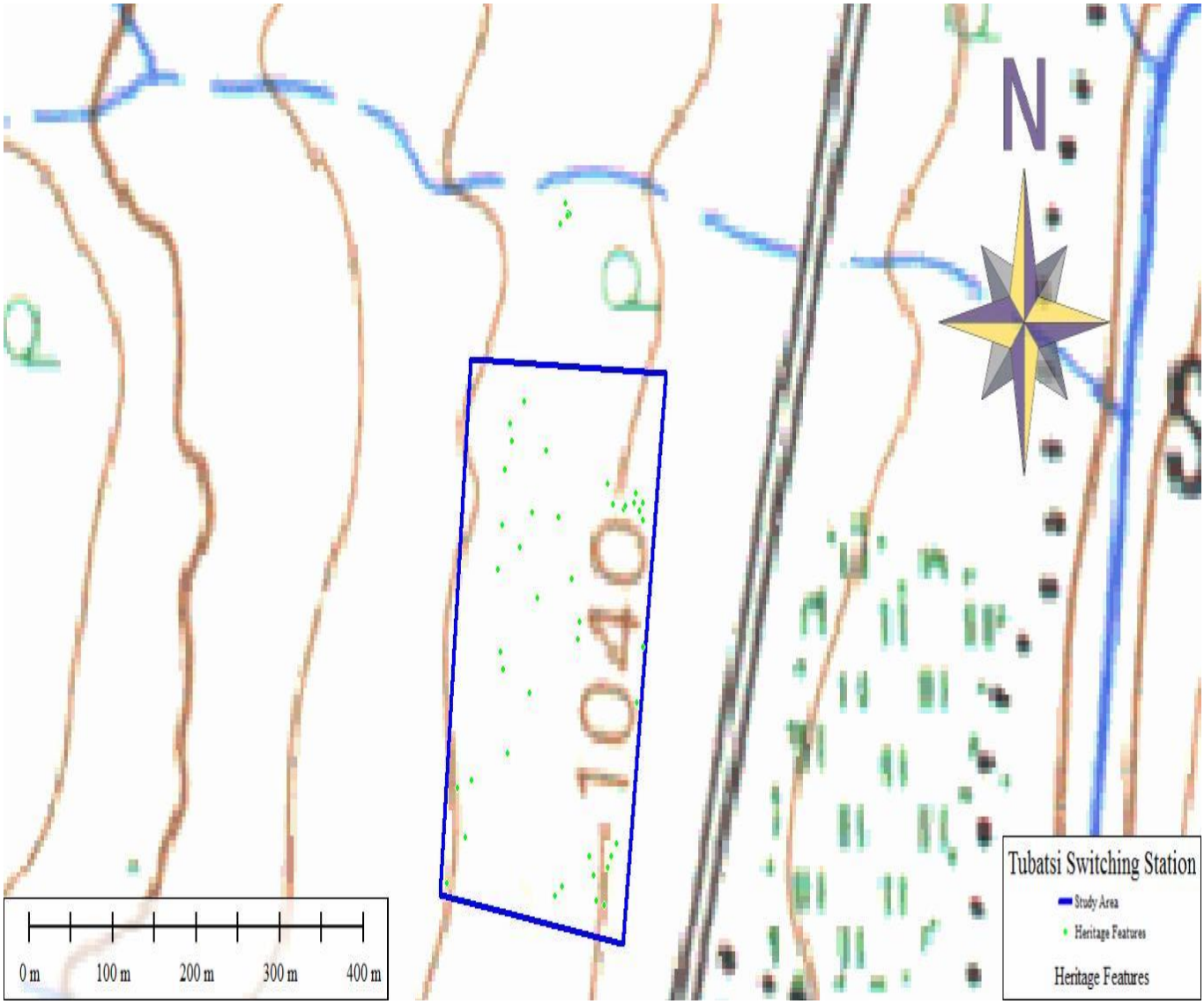

Figure 12: Map showing the archaeological features (enclosures, platforms, hut bays and others) that need to be avoided during the geotechnical testing. The open areas in between contain mainly terracing, although some features could have been oversighted.

7. CONCLUSIONS AND RECOMMENDATIONS

In conclusion, it is possible to say that the preliminary mapping of the LIA stone walled settlement site, to be impacted on by the development of the Tubatse Switching Station, has been completed successfully. It is clear from this that nearly the total area covered by the footprint of the development contains LIA stone walled features that include agricultural terracing, related features such as granary platforms and some residential elements that consist of hut bays and livestock enclosures (cattle kraals).

The mapping within this report focused on recording significant features and areas that need to be avoided during the geotechnical test trenching. These (or some of these features and areas) will also be excavated during the physical archaeological work on the site to be undertaken as part of the Phase 2 Mitigation. In order for the archaeological mitigation work to be concluded on the site an Excavation Permit will be applied for from

SAHRA and once issued the fieldwork will be concluded. Further to this the following is recommended:

1. that the Geotechnical test pits be planned in accordance to the results of this preliminary mapping of the site in order to place these pits away from these sensitive areas.

2. that once the Geotechnical trenching commences on site that this activity be monitored by a suitably qualified archaeologist in order to mitigate any possible impacts on invisible cultural deposits and significant features. Should the excavation permit be issued prior to this happening these two actions can occur simultaneously.

3. that a detailed plan/map of the site be produced during the above.

4. that once the archaeological excavations has been concluded a Destruction Permit for the site be applied for at and obtained from SAHRA so that the construction of the Switching Station can successfully commence.

8. REFERENCES

Aerial views of the study area and site: Google Earth 2013.

Topographic location map of study area and LIA sites: From Van Schalkwyk 2013 (2012/JvS/60).

Topographic maps of Switching Station footprint and Archaeological Features: Produced by Jaco van der Walt (HCAC).

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

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Van Schalkwyk, J.A. 2013. *Compilation of Construction Environmental Management Programmes for the Steelpoort to Marblehall 400KV Power-Line and the Steelpoort Integration Project: Heritage Resources Assessment*. Unpublished Report 2012/JvS/60. For: Iliso Consulting. January 2013.