



NGT ESHS Solutions

PROJECT TITLE:

SOCIAL MONITORING PROGRAMME FOR THE ARIADNE-EROS 400KV MULTI
CIRCUIT LINES, KWAZULU-NATAL PROVINCE

PROJECT REFERENCE NUMBER:

DATE OF ISSUE:

12 SEPTEMBER 2018

SPECIALIST REPORT:

**Grave Assessment as Part of Ariadne-Eros 400kv
Multi Circuit Lines Social Monitoring Programme**

NGT Holdings (Pty) Ltd

Registration: 2012/004322/07 V.A.T: 495073401

Tel: 011 888 0209

CEO – Nkosinathi Tomose

E-mail: nkosinathi@ngtholdings.co.za

Website: www.ngtholdings.co.za

Postal Address: PostNet Suite # 122, Private Bag X1, Northcliff, 2115

ACKNOWLEDGEMENT OF RECEIPT

CLIENT:	MOKGOPE CONSULTING CC
CONTACT PERSON	Dr Mpho Nenweli
TELEPHONE NUMBER	011 4401817
FAX NUMBER	086 607 9481
CELL PHONE NUMBER	082 567 3099
E-MAIL ADDRESS:	mpho@mokgope.co.za

CONSULTANT:	NGT HOLDINGS (PTY) LTD
AUTHOR	Mr Nkosinathi Tomose
REVIEW AND QUALITY CONTROL (INTERNAL)	Ms Cherene de Bruyn
TELEPHONE NUMBER	011 888 0209
CELL PHONE NUMBER	073 278 3317
E-MAIL ADDRESS:	cherene@ngtholdings.co.za

CONTACT PERSON:	CHIEF EXECUTIVE OFFICER AND PRINCIPAL CONSULTANT
HAND SIGN:	
CONTACT PERSON:	DIRECTOR- STRATEGY AND BUSINESS DEVELOPMENT
HAND SIGN:	

COPYRIGHT


Copyright for this Grave Assessment report (including all the associated data, project results and recommendations) whether manually or electronically produced totally vest with NGT Holdings (Pty) Ltd (herewith referred to as NGT). This copyright extends to all documents forming part of the current submission and any other subsequent reports or project documents such as their inclusion in the Social Monitoring Programme and the Environmental Management Programme (EMPr) document for Ariadne-Eros Multi-Circuit Construction Programme in KwaZulu-Natal Province, South Africa. Therefore, it is the author's views that no parts of this report may be reproduced or transmitted in any form whatsoever for any person or entity without prior written consent and signature of the author or any other representative of NGT. This limitation is with exception to Mokgope Consulting CC (hereafter also referred to as Mokgope) and its client Eskom Holdings SOC Ltd and the Project Quality Control Department of the funding body i.e. the African Development Bank whose policies influenced the study.

The limitation for the transmission of the report, both manually and electronically without changing or altering the reports results and recommendations, shall also be lifted for the purposes of submission, circulation and adjudication purposes by the relevant authorities. These authorities include the Provincial Heritage Resources Authority i.e. Amafa KwaZulu-Natali (Amafa).

NGT takes full responsibility for specialists working on the project for all heritage related matters based on the information provided by the clients. NGT will not be liable for any changes in design or change of construction of the proposed project. Furthermore, any changes to the scope of works that may require significant amendments to the current heritage document will result in alteration of the fee schedule agreed upon with Mokgope.

DECLARATION OF INDEPENDENCE

Nkosinathi Tomose for NGT has compiled this report. The views expressed in this report are entirely those of the author and no other interest was displayed during the decision-making process for the project.

CONSULTANT:	NGT HOLDINGS (PTY) LTD
SPECIALIST NAME	Nkosinathi Tomose
QUALIFICATIONS	<ul style="list-style-type: none"> • Master of Architecture in Sustainable and Energy Efficient Cities (MSEEC), Wits University (Current) • Master of Science in Rock Art Studies: Archaeology and Heritage Management, Wits University • BSc Honours in Archaeology: Landscape Studies, Wits University • BA, Archaeology and Geography, Wits University
ASSOCIATION/PROFESSIONAL BODY	Association of South African Professional Archaeologists (ASAPA 275): Rock Art, Iron Age and Grave Relocation IAIAAsa – Environmental, Heritage and Social Impact Studies
YEARS OF EXPERIENCE IN THE INDUSTRY	12 Years
SIGNATURE (HAND SIGNATURE ON APPROVAL BY CLIENT)	

EXECUTIVE SUMMARY

NGT was appointed by Mokgope to conduct a grave assessment on towers currently under construction for the Ariadne-Eros 400 kV/132kV Multi-Circuit (MC) transmission lines in KwaZulu-Natal Province, South Africa. The assessment focused on the area between Towers 146 and 155 under the Inkosi LD Mkhize authority. The assessment was conducted by Nkosinathi Tomose of NGT assisted with Nelisiwe Mtshali of Mokgope. The survey took place on the 25th of August 2018. The assessment identified three issues on the towers under construction. The following conclusions are made about the project.

Conclusions

- There has been accidental desecration of a grave during construction activities on Tower 152. The tower is constructed in an area with ruins both east and west of the tower's position. The contractor would not have known about the graves since they are not clearly marked. However, whenever there are ruins on a site, there is always high possibility that there will be graves on site.
 - The detailed survey conducted on this site yielded a fractured **os coxa** (pelvis bone) of a human. Other grave indicators include stained clothes which could have been associated with the burial as well as plastic material that remains in the grave when a casket decomposes (*Figures 7 to 9*).
- On the road to Tower 153 a grave has been slightly scrapped by a grader. The disturbance is not that significant (*Figure 10 and 11*)
- A grave between Tower 154 and 155 was disturbed during the construction of an access road to Tower 155; however, construction activities ceased on this road as the contractor opted for a different route to access Tower 155.

Recommendations

- It is recommended that construction activities should be stopped in Tower 152 until NGT obtain a grave rescue permit from Amafa KwaZulu-Natali.

- The graves on the road to Tower 153 should be immediately fenced off to avoid them be disturbed by trucks/graders working on Tower 153. An instruction has also been issued to the family and they will commence with the fence from Monday 27 August 2018.
- The issue of the Mkhize grave should be attended to with immediate effect – Induna Meyiwa has reported the issue to the contractor and the social team on site which was represented by Ms Snenhlanhla Mngadi. However, nothing has been done to date and this has posed social risks to the project – the Ngcobo family whose graves are located near the ruins close to Tower 155 are concerned that the contractor might desecrate their family graves.
- All other graves are clear from construction activities, but it is proposed that extra measures should be undertaken to induct the contractor on site on how to spot and deal with issues of unmarked graves
- It is recommended that construction activities may proceed as planned in all other towers with the exception to Tower 152 which requires an urgent rescue permit.
- The issue of the Mkhize grave should also be attended to so that the Ngcobo family which have graves near Tower 155 may be at ease and allow construction activities to proceed on Tower 155.
- It is recommended that Mokgope includes an archaeologist as part of its Monitoring Programme for the construction of the all the towers in the project. The archaeologist needs to access each tower prior to the commencement of any construction activities. The archaeologists should be appointed at least a month prior to any planned construction activities. This will allow the archaeologist to conduct a detailed assessment and develop a grave and cemetery Cultural Management Plan (CMP) beforehand as a productive mitigation measure for the cultural graves situated along the proposed transmission lines.

TABLE OF CONTENTS

ACKNOWLEDGEMENT OF RECEIPT	2
COPYRIGHT	3
DECLARATION OF INDEPENDENCE	4
EXECUTIVE SUMMARY	5
TABLE OF CONTENTS.....	7
LIST OF TABLES	8
TERMS AND DEFINITIONS.....	10
1. INTRODUCTION	12
1.1. Background Information of Project	12
1.2. Terms of Reference and Legal Requirements for the Appointment of Archaeologist and Heritage Specialist.....	13
2. DESCRIPTION OF THE RECEIVING ENVIRONMENT	15
2.1. Description of the Receiving Environment	15
3. METHODOLOGY	16
4. RESULTS.....	16
5. CONCLUSIONS	26
6. REFERENCE LIST	28

TABLE OF FIGURES

Figure 1- Location of the project footprint in KwaZulu-Natal Province, South Africa.....	12
Figure 2-Inkosi LD Mkhize family graves	17
Figure 3-Tower 148 with no graves.....	18
Figure 4-Mthembu family ruins. Here there we three rondavels that have since been demolished to make way for the tower. Arrows show position of graves.....	19
Figure 5-Mthembu family ruins. Here there we three rondavels that have since been demolished to make way for the tower	19
Figure 6-Sifiso Koyama family graves situated south of tower 150 whose foundations are nearly complete.	20
Figure 7-Sifiso Koyama family graves in relation to the tower position.....	21
Figure 8-Part of human pelvis bone found in the excavated soil.....	22
Figure 9-Grave indicators	23
Figure 10-Location of grave sites in relation to Tower 152.....	23
Figure 11- Two graves located next to a road used to access tower 153	24
<i>Figure 12-Location of the two graves in relation to tower 153</i>	<i>24</i>
Figure 13-Location of the Mkhize family grave that was disturbed through road construction activity ...	25

LIST OF TABLES

Table 1-Summary of legislation relevant to traditional burial places in the KwaZulu-Natal Province	14
--	----

LIST OF ABBREVIATIONS

ACRONYMS	DESCRIPTION
AUTHORITIES	
Amafa	Amafa KwaZulu Natali
ASAPA	Association of South African Professional Archaeologists
NGT	Nurture, Grow, Treasure
SADC	Southern African Developing Community
DISCIPLINE	
AIA	Archaeological Impact Assessment
CMP	Cultural Management Plan
GCMP	Grave Conservation Management Plan
CCMP	Cemetery Management Plan
LSM	Living Stand Measure
MC	Multi-Circuit
SMP	Social Monitoring Programme
LEGAL	
NHRA	National Heritage Resources Act

TERMS AND DEFINITIONS

Archaeological resources

These include:

- Material remains resulting from human activities which are in a state of disuse and are in or on land and which are older than 100 years including artefacts, human and hominid remains and artificial features and structures;
- Rock art, being any form of painting, engraving or other graphic representation on a fixed rock surface or loose rock or stone, which was executed by human agency and which is older than 100 years, including any area within 10m of such representation;
- Wrecks, being any vessel or aircraft, or any part thereof which was wrecked in South Africa, whether on land, in the internal waters, the territorial waters or in the maritime culture zone of the republic as defined in the Maritimes Zones Act, and any cargo, debris or artefacts found or associated therewith, which is older than 60 years or which SAHRA considers to be worthy of conservation;
- Features, structures and artefacts associated with military history which are older than 75 years and the site on which they are found.

Palaeontological

This means any fossilised remains or fossil trace of animals or plants which lived in the geological past, other than fossil fuels or fossiliferous rock intended for industrial.

Cultural significance

This means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance.

Development

This means any physical intervention, excavation, or action, other than those caused by natural forces, which may in the opinion of the heritage authority in any way result in the change to the nature, appearance or physical nature of a place or influence its stability and future well-being, including:

- Construction, alteration, demolition, removal or change in use of a place or a structure at a place;
- Carrying out any works on or over or under a place;

- Subdivision or consolidation of land comprising a place, including the structures or airspace of a place;
- Constructing or putting up for display signs or boards; any change to the natural or existing condition or topography of land;
- And any removal or destruction of trees, or removal of vegetation or topsoil.

Heritage resources: This means any place or object of cultural significance.

1. INTRODUCTION

1.1. Background Information of Project

NGT was appointed by Mokgope to assess the presence of graves between Towers 146 and 155 as part of a Social Monitoring Programme (SMP) managed by Mokgope for the construction of the Ariadne-Eros 400 kV/132kV Multi-Circuit (MC) transmission lines in KwaZulu-Natal (KZN) Province, South Africa (Figure 1). The assessment focused on the towers that are under construction, some of whose construction had to be stopped due to suspicion that there might be graves located by the towers; for example, on Tower 152.

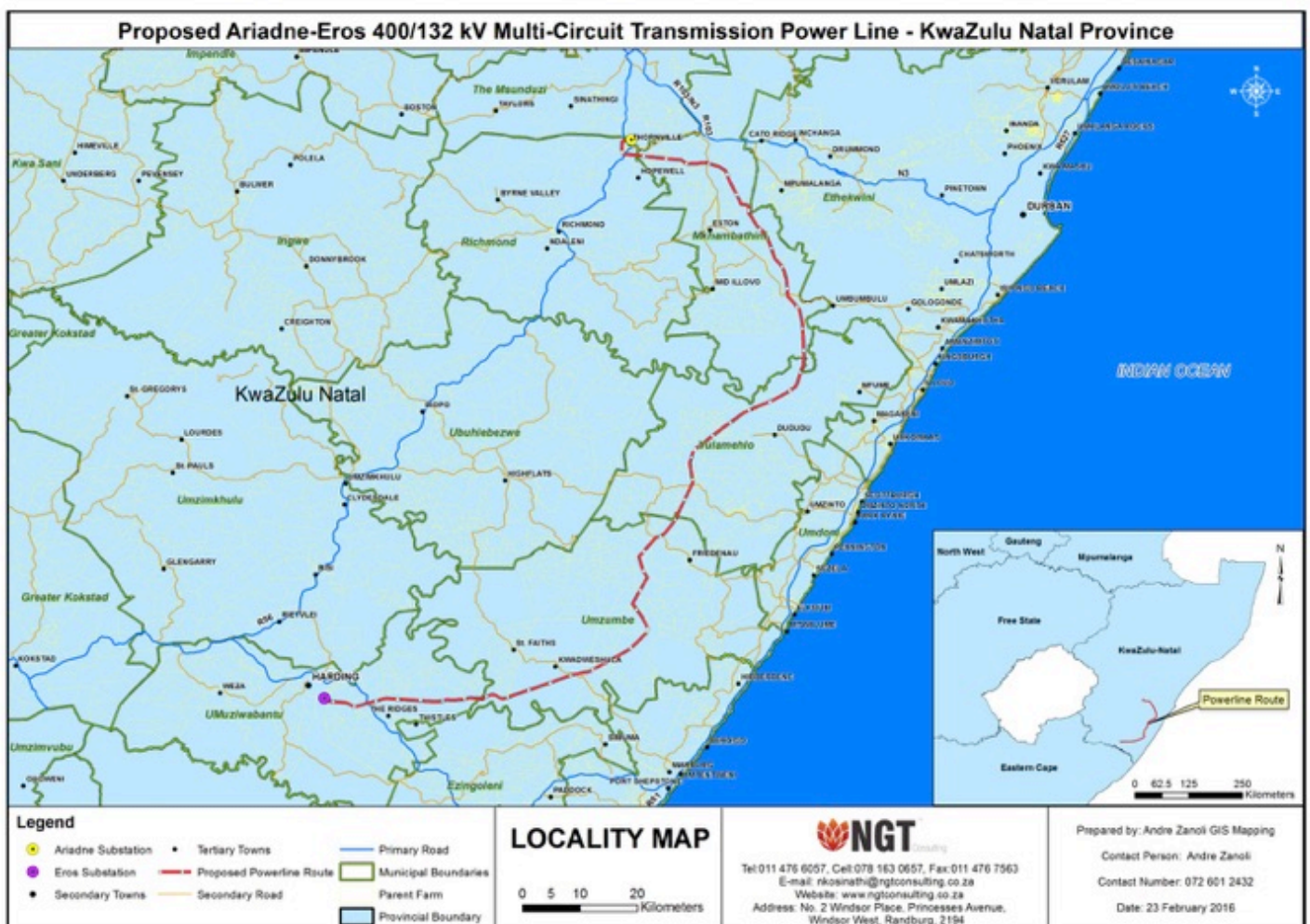


Figure 1- Location of the project footprint in KwaZulu-Natal Province, South Africa.

1.2. Terms of Reference and Legal Requirements for the Appointment of Archaeologist and Heritage Specialist

Following the identification of graves on Tower 152 and the concerns that other graves may be impacted by the construction activities of the proposed Ariadne-Eros 400 kV/132kV MC transmission lines in KZN; NGT was appointed to conduct a site-specific survey of the towers under construction. The towers assessed are on Section B of the MC transmission lines and located between Tower 146 and Tower 155. The appointment of NGT to conduct the grave assessment is in terms of the following legislations:

- Section 36 of the National Heritage Resources Act, No. 25 of 1999 - Graves older than 60 years located outside a formal cemetery administered by a local authority
- The KwaZulu Natal Heritage Act (KZNHA), No. 10 of 1997 is developed to manage heritage resources at a provincial level.
 - KwaZulu-Natal Cemeteries and Crematoria Act 12 of 1996 Human Tissues Act 65 of 1983 - Graves located within a formal cemetery administered by a local authority
 - KwaZulu-Natal Heritage Act No 4 of 2008 Human Tissues Act No 65 of 1983 - Graves younger than 60 years located outside a formal cemetery administered by a local authority and the graves of victims of conflict.

Table 1-Summary of legislation relevant to traditional burial places in the KwaZulu-Natal Province

Grave type	Relevant legislation	Administrative authority-disinterment	Administrative authority –reburial
Graves located within a formal cemetery administered by a local authority	KwaZulu-Natal Cemeteries and Crematoria Act 12 of 1996 Human Tissues Act 65 of 1983	National and / or Provincial Departments of Health	If relocated to another formal cemetery – relevant local authority.
Graves younger than 60 years located outside a formal cemetery administered by a local authority and the graves of victims of conflict	KwaZulu-Natal Heritage Act No 4 of 2008 Human Tissues Act No 65 of 1983	Amafa KwaZulu-Natali, the provincial heritage management organisation	If relocated to a private or communal property – Amafa. If relocated to formal cemetery – Amafa and relevant local authority
Graves older than 60 years located outside a formal cemetery administered by a local authority	National Heritage Resources Act No 25 of 1999 Human Tissues Act of 1983	South African Heritage Resources Agency (SAHRA), the national heritage management organisation	If relocated to private or communal property – SAHRA. If relocated to formal cemetery – SAHRA and relevant local authority.

2. DESCRIPTION OF THE RECEIVING ENVIRONMENT

2.1. Description of the Receiving Environment

The study area is situated to the south of the town Pietermaritzburg within the Tribal Authority of Inkosi L.D. Mkhize. It is characterised by undulating valleys and hills. The graves in the area are predominantly unmarked, making it difficult for the contractor on site to identify them. The nature of the receiving environment makes it difficult for the next of kin to mark their family graves with stone or stone mound markers as the terrain is predominantly devoid of any stones. Those with some financial resources have marked their family graves by constructing grave dressing and headstones using bricks and those families who can be characterised as falling within the middle and upper LSM (Living Standard Measure) have granite headstone and dressings as grave markers.

3. METHODOLOGY

The method of study for the current grave assessment process involved:

- Site specific survey of the affected towers and assessing the 15 to 20m radius from the tower centre position;
 - Interviewing people who are situated near the tower position to ascertain if they know of any families that once settled the area with the tower and if those people had graves;
 - In the case that they know of graves we asked them to point us in the position of graves;
 - In the case where they know of the family name, we would ask them where the family has relocated and the contact person that we should contact in search of the next of kin involved;
- Therefore, social consultation became an important and critical tool in the grave assessment process owing to the fact that most graves have no grave markers due to socio-economic and environmental conditions of the receiving environment.

4. RESULTS

TOWER 147 HERITAGE ISSUES:

- Near Tower 147 there are 2 graves that belong to the parents of Inkosi LD Mkhize (*Figure 2*). The graves will not be directly impacted by the tower construction. There are situated 20m away from the tower's centre position. The tower near this cemetery site has been move to a new location and away from the grave site.



Figure 2-Inkosi LD Mkhize family graves

TOWER 148 HERITAGE ISSUES:

- The tower has no graves. It is situated in an open area with no ruins or foundations of former homesteads. However, north and south of the tower there are households known to contain graves (*Figure 3*).

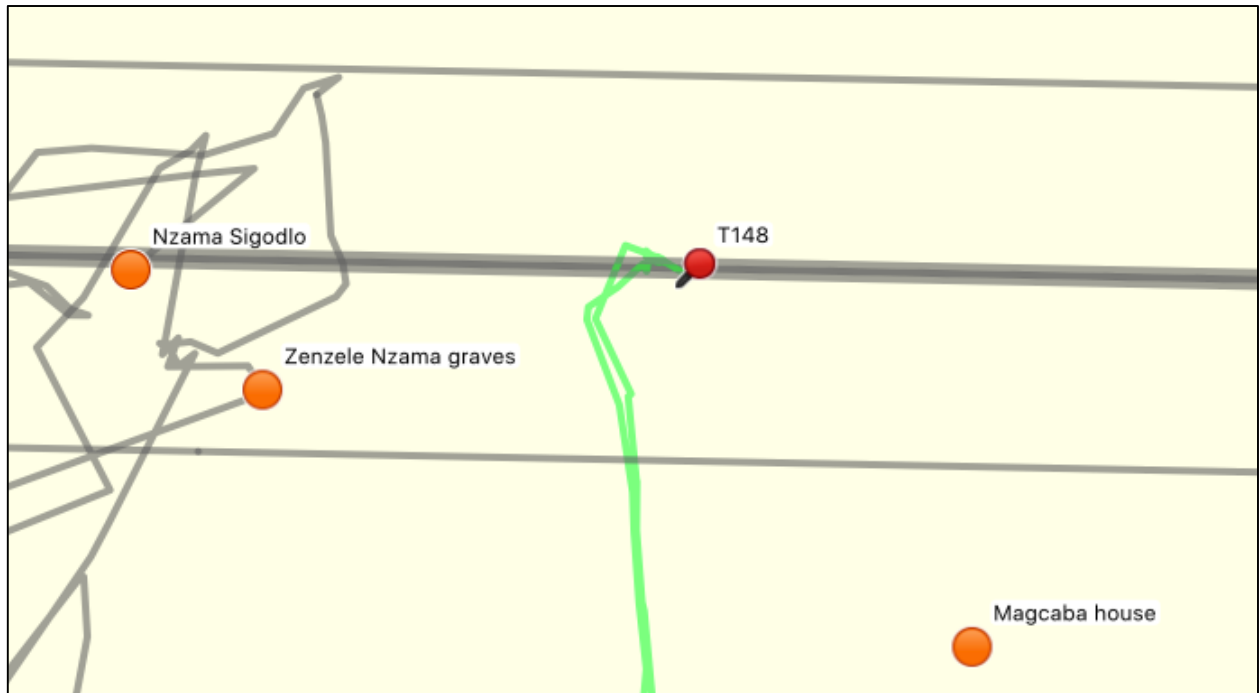


Figure 3-Tower 148 with no graves

TOWER 149 HERITAGE ISSUES:

- The tower is located in the Mthembu homestead and south of the Maphumulo homestead. There are approximately 9 graves in the homestead. They are situated approximately 12m from the current tower position and to the south of the tower (*Figure 5*). The tower has been moved to the area where the family built old three rondavels. The rondavels have since been demolished to make space for the tower (*Figure 4*)



Figure 4-Mthembu family ruins. Here there we three rondavels that have since been demolished to make way for the tower. Arrows show position of graves

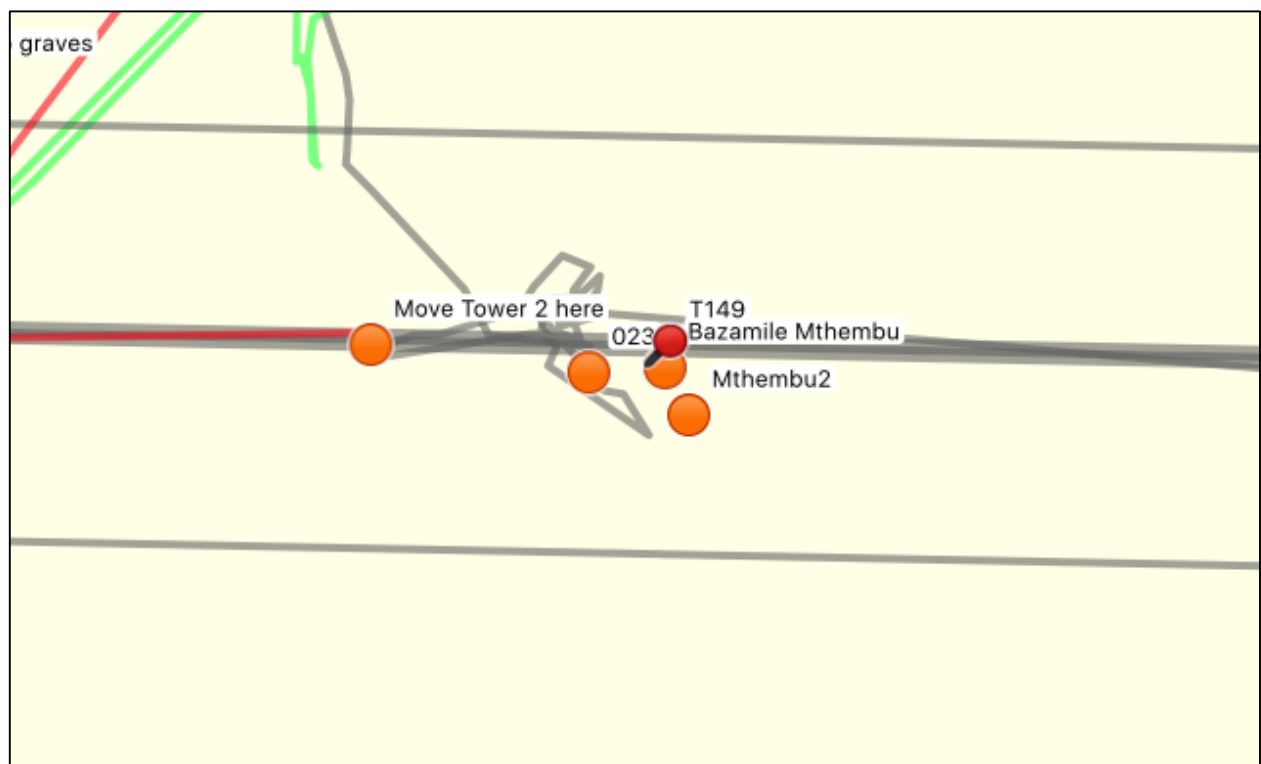


Figure 5-Mthembu family ruins. Here there we three rondavels that have since been demolished to make way for the tower

TOWER 150 HERITAGE ISSUES:

- The tower is situated in the former Koyama family homestead. Here construction activities are underway. The graves are situated south of the tower (*Figure 6 and Figure 7*).



Figure 6-Sifiso Koyama family graves situated south of tower 150 whose foundations are nearly complete.

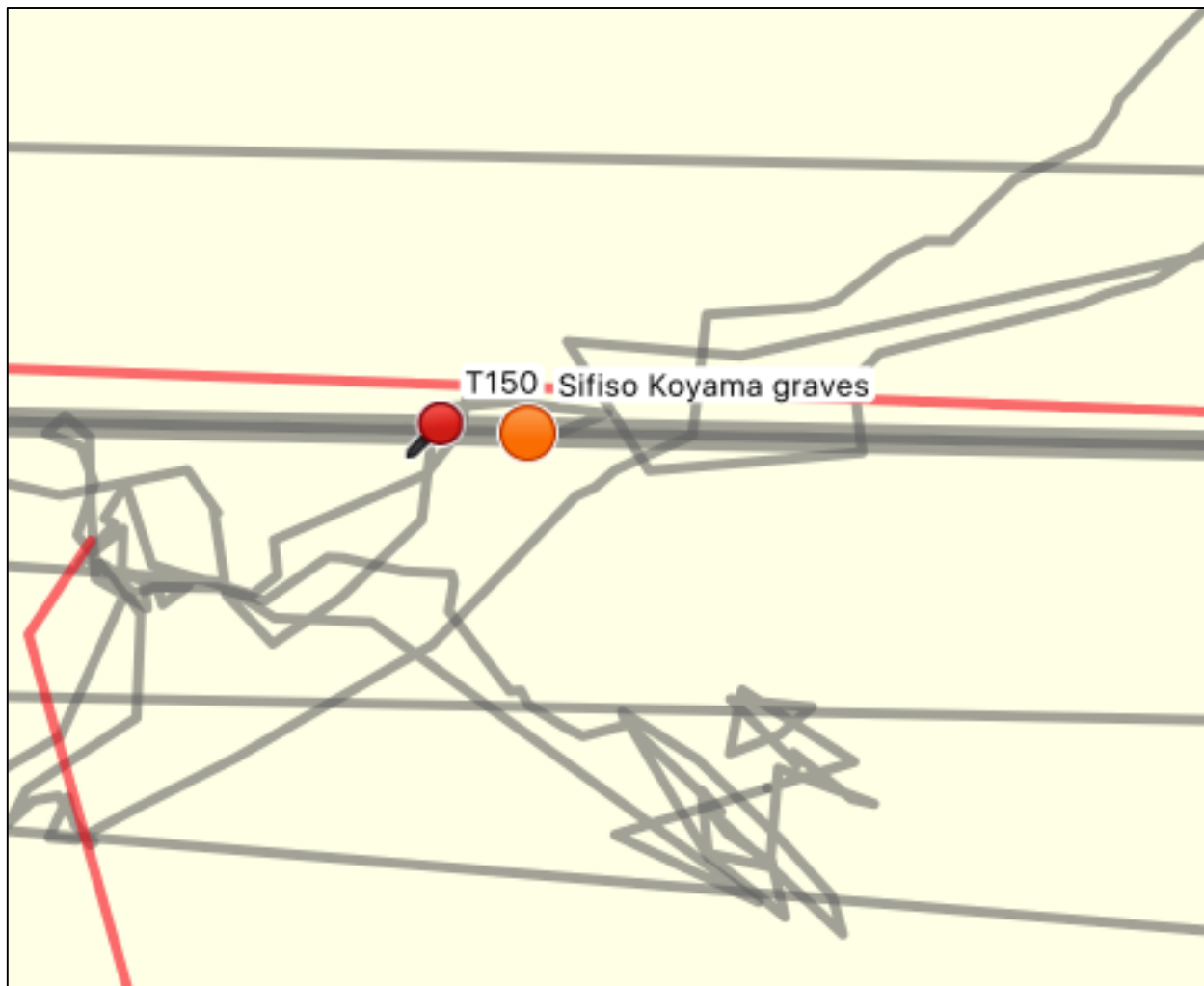


Figure 7-Sifiso Koyama family graves in relation to the tower position.

TOWER 151 AND 152 HERITAGE ISSUES:

There are no graves under tower 151. However, Tower **152** has issues. There are known graves located south, east and west of the tower. There are also ruins east and west of the tower. The tower foundations have already been dug up and cement poured. An assessment of the tower foundation yielded the following information:

- A human os coxa (Pelvis bone) was found (*Figure 8*)
- There were also stained clothes found in the soil –during the burial decomposition process clothes are often stained (*Figure 9*)
- A metal zinc was also found on the soil dump – this is another indicator of grave disturbance since metal zincs are often place above the casket in burial processes (*Figure 10*)

- There is a layer in one of the tower foundations which show signs of casket plastic and clothes (Figure 10)



Figure 8-Part of human pelvis bone found in the excavated soil

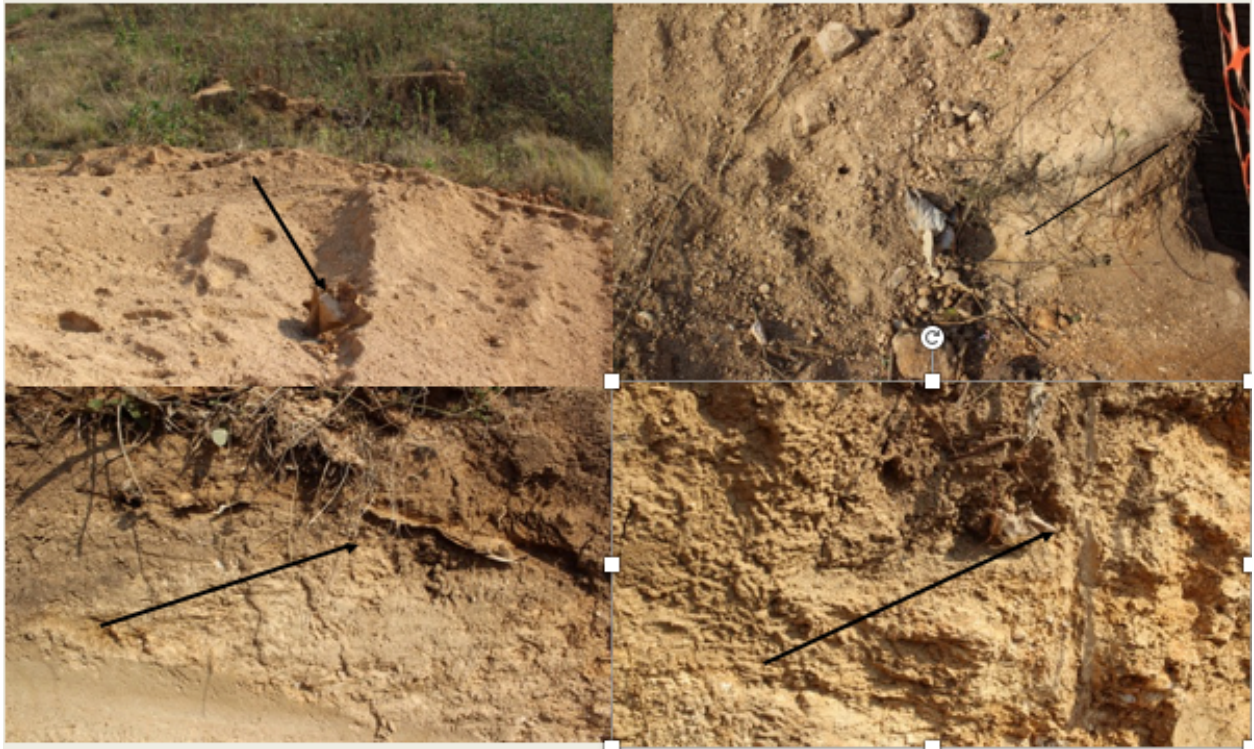


Figure 9-Grave indicators

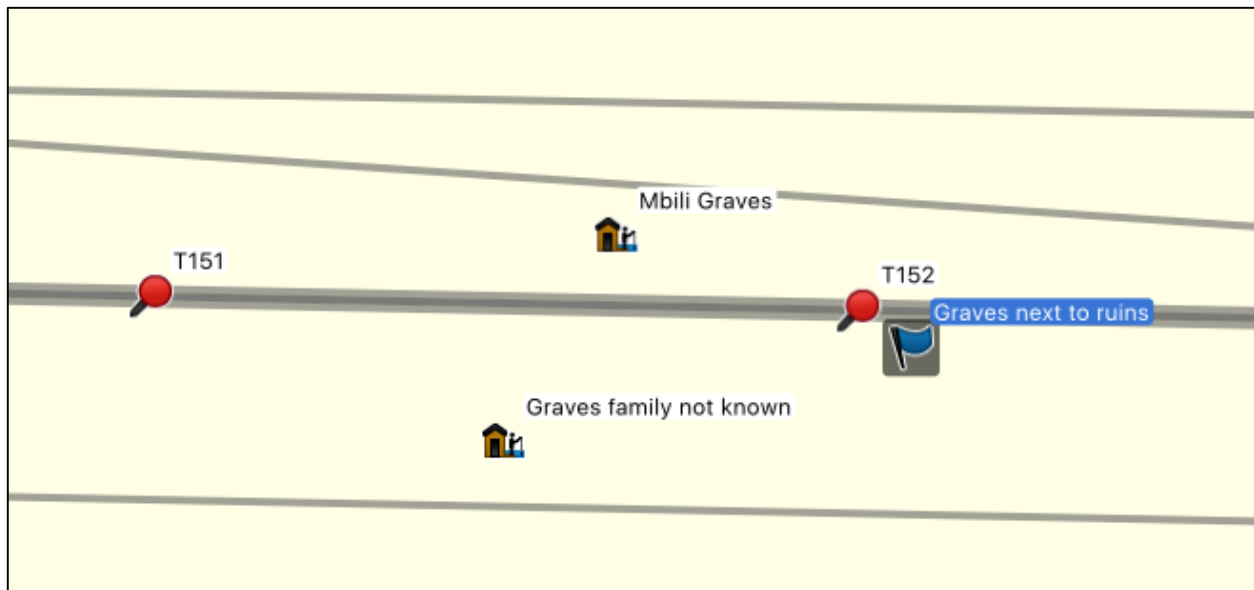


Figure 10-Location of grave sites in relation to Tower 152

TOWER 153 HERITAGE ISSUES:

- The tower has no graves. However, south-east of the tower and on the road that has been created to access the tower two graves have been found (*Figure 11 and Figure 12*). One of the graves is slightly scraped by the grader.



Figure 11- Two graves located next to a road used to access tower 153

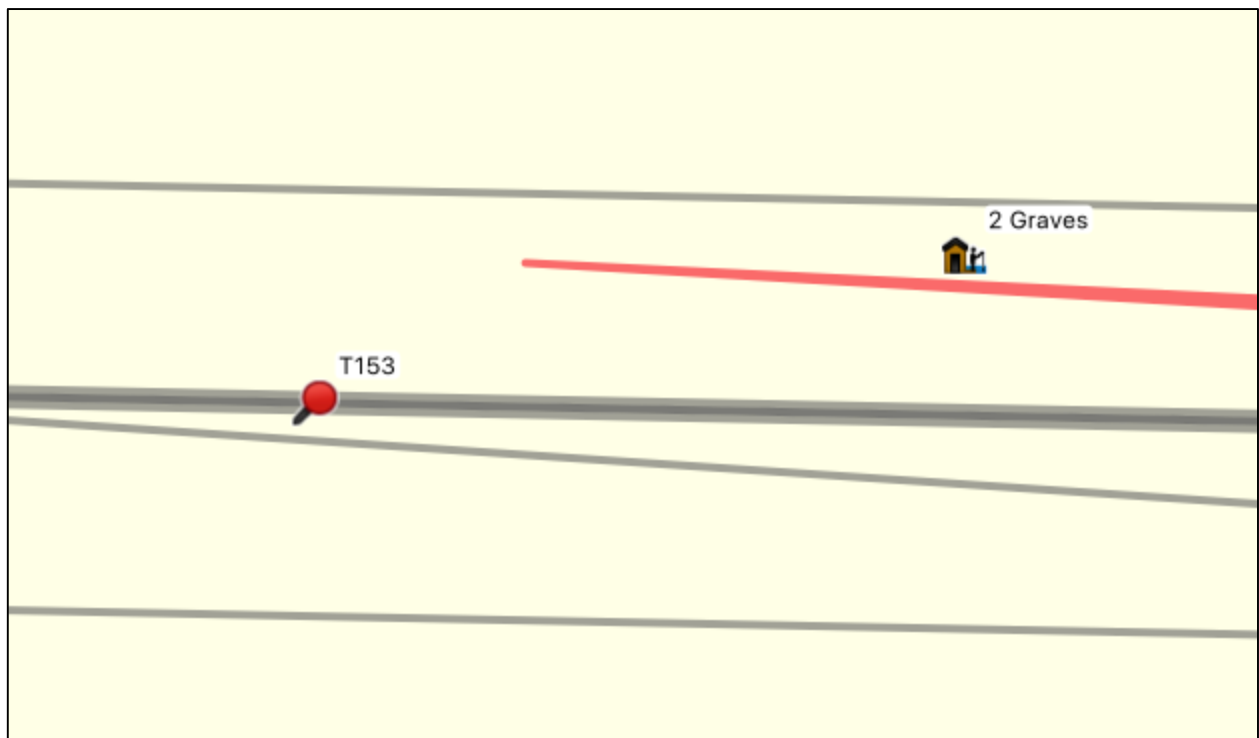


Figure 12-Location of the two graves in relation to tower 153

TOWER 154 AND 155 HERITAGE ISSUES:

- There are no issues in terms of Tower 154. There is, however, a challenge between Towers 154 and 155. When the road to access Tower 155 was initially constructed, it disturbed a grave belonging to the Mkhize family. The road has since been diverted to a new location, but the grave issue still stands as it has not yet been addressed. The figure below shows the location of the grave in relation to Tower 154 and Tower 155 (Figure 13).

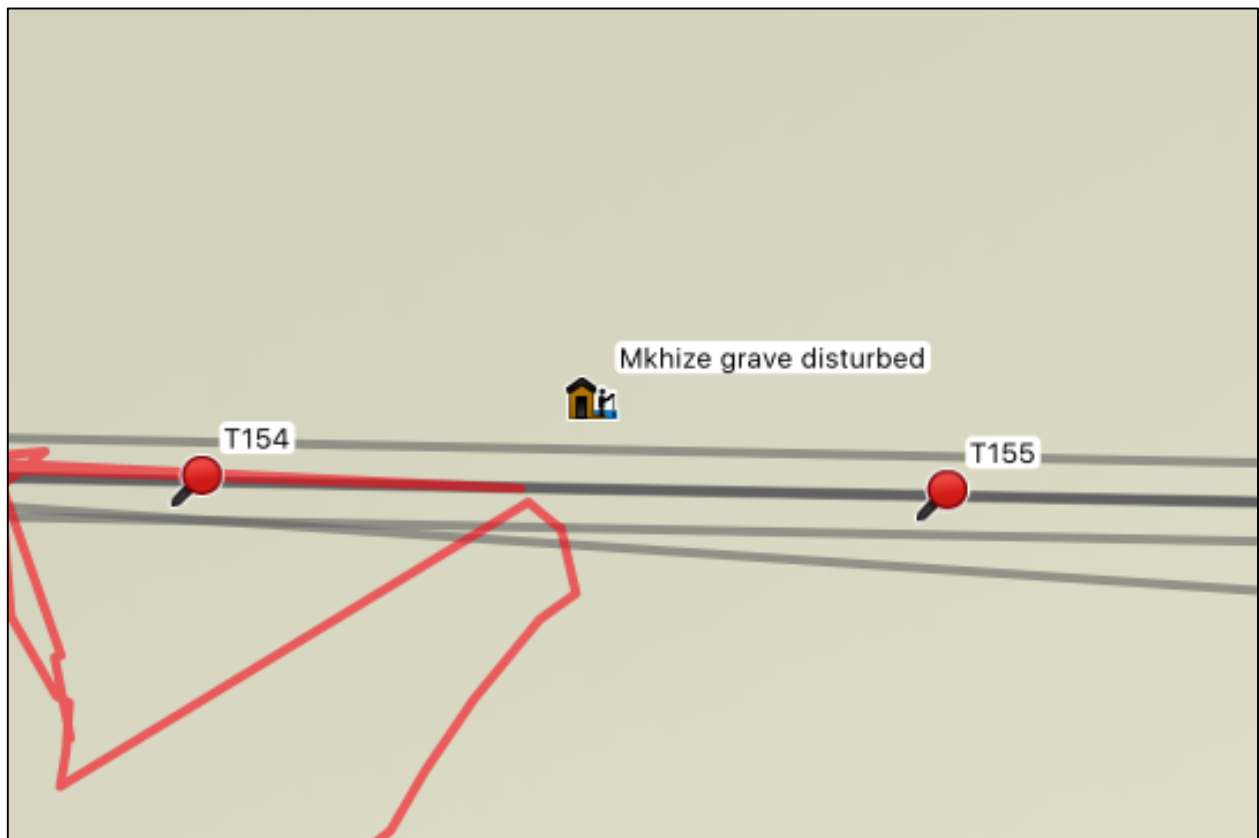


Figure 13-Location of the Mkhize family grave that was disturbed through road construction activity

5. CONCLUSIONS

- There has been accidental desecration of a grave during construction activities on Tower 152. The tower is constructed in an area with ruins both east and west of the tower's position. The contractor would not have known about the graves since they are not clearly marked. However, whenever there are ruins on a site, there is always high possibility that there will be graves on site.
 - The detailed survey conducted on this site yielded a fractured **os coxa** (pelvis bone) of a human. Other grave indicators include stained clothes which could have been associated with the burial as well as plastic material that remains in the grave when a casket decomposes (*Figures 7 to 9*).
- On the road to Tower 153 a grave has been slightly scrapped by a grader. The disturbance is not that significant (*Figure 10 and 11*)
- A grave between Tower 154 and 155 was disturbed during the construction of an access road to Tower 155; however, construction activities ceased on this road as the contractor opted for a different route to access Tower 155.

Recommendations

- It is recommended that construction activities should be stopped in Tower 152 until NGT obtain a grave rescue permit from Amafa KwaZulu-Natali.
- The graves on the road to Tower 153 should be immediately fenced off to avoid them be disturbed by trucks/graders working on Tower 153. An instruction has also been issued to the family and they will commence with the fence from Monday 27 August 2018.
- The issue of the Mkhize grave should be attended to with immediate effect – Induna Meyiwa has reported the issue to the contractor and the social team on site which was represented by Ms Snenhlanhla Mngadi. However, nothing has been done to date and this has posed social risks to the project – the Ngcobo family whose graves are located near the ruins close to Tower 155 are concerned that the contractor might desecrate their family graves.
- All other graves are clear from construction activities, but it is proposed that extra measures should be undertaken to induct the contractor on site on how to spot and deal with issues of unmarked graves

- It is recommended that construction activities may proceed as planned in all other towers with the exception to Tower 152 which requires an urgent rescue permit.
- The issue of the Mkhize grave should also be attended to so that the Ngcobo family which have graves near Tower 155 may be at ease and allow construction activities to proceed on Tower 155.
- It is recommended that Mokgope includes an archaeologist as part of its Monitoring Programme for the construction of the all the towers in the project. The archaeologist needs to access each tower prior to the commencement of any construction activities. The archaeologists should be appointed at least a month prior to any planned construction activities. This will allow the archaeologist to conduct a detailed assessment and develop a grave and cemetery Cultural Management Plan (CMP) beforehand as a productive mitigation measure for the cultural graves situated along the proposed transmission lines.

6. REFERENCE LIST

Tomose, N.G. 2016. Phase 2 Heritage Impact Assessment Study for the Proposed Ariadne-Eros 400/132 kV Multi-Circuit Transmission Powerlines from Ariadne Sub-Station to Eros Sub-Station and the Expansion and Upgrade of the Ariadne Sub-Station and the Eros Sub-Station, Kwazulu-Natal, Republic of South Africa. *SOCIAL IMPACT ASSESSMENTS, RESETTLEMENT PLANS AND PHASE 2 HERITAGE IMPACT ASSESSMENT FOR THE ARIEDNE-EROS 400KV MULTI CIRCUIT LINES. KWAZULU-NATAL PROVINCE*. Unpublished Report. Mokgope Consulting CC