Archaeological Site Inspection -

Purported Grave Site: Koukamma Electrification Project, Hermanuskraal, Kou-Kamma Local Municipality, Eastern Cape

- 29 March 2016 -

Report to:

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Specialist Declaration of Interest

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I, Karen van Ryneveld (Company – ArchaeoMaps; Qualification – MSc Archaeology), declare that:

- I am suitably qualified and accredited to act as independent specialist in this application;
- I do not have any financial or personal interest in the application, its' proponent or any subsidiaries, aside from fair remuneration for specialist services rendered; and
- That work conducted has been done in an objective manner and that any circumstances that may have compromised objectivity have been reported on transparently.

Legnardet.

Signature -

- 29 March 2016 -

Assessor Accreditation -

Karen van Ryneveld (ArchaeoMaps):

- o Qualification: MSc Archaeology (2003) WITS University, Johannesburg / Certificate GIS (2007) NMMU University, Port Elizabeth.
- Accreditation: Association of Southern African Professional Archaeologists (ASAPA) accredited Cultural Resources Management (CRM) practitioner [member nr – 163]
 - 1. 2004 Association of Southern African Professional Archaeologists (ASAPA) Professional Member.
 - 2. 2005 ASAPA CRM Section: Accreditation Field Director (Stone Age, Iron Age, Colonial Period).
 - 3. 2010 ASAPA CRM Section: Accreditation Principle Investigator (Stone Age).

Karen van Ryneveld is a SAHRA / AMAFA / EC PHRA / HWC listed CRM archaeologist.

Karen has been involved in CRM archaeology since 2003 and has been the author (including selected co-authored reports) of more than 400 Phase 1 AIA studies. Phase 1 AIA work is centered in South Africa, focusing on the Northern and Eastern Cape provinces and the Free State. She has also conducted Phase 1 work in Botswana (2006/2007). In 2007 she started ArchaeoMaps, an independent archaeological and heritage consultancy. In 2010 she was awarded ASAPA CRM Principle Investigator (PI) status based on large scale Phase 2 Stone Age mitigation work (De Beers Consolidated Mines – Rooipoort, Northern Cape – 2008/2009) and has also been involved in a number of other Phase 2 projects including Stone Age, Shell Middens, Grave / Cemetery projects and Iron Age sites.

In addition to CRM archaeology she has been involved in research, including the international collaborations at Maloney's Kloof and Grootkloof, Ghaap plateau, Northern Cape (2005/2006). Archaeological compliance experience includes her position as Head of the Archaeology, Palaeontology and Meteorites (APM) Unit at AMAFA aKwa-Zulu Natali (2004).

Purported Grave Site: Koukamma Electrification Project, Hermanuskraal, Kou-Kamma Local Municipality, Eastern Cape

Executive Summary

Project Description -

The Koukamma Electrification Project, Hermanuskraal, Kou-Kamma Local Municipality, Eastern Cape, comprises the installation of 22kV powerlines in the Hermanuskraal area to provide household electricity to residents. In accordance with NEMA 1998 – Regulations 2014, the project proponent, Eskom, received exemption from EA, but no Phase 1 HIA, in accordance with the NHRA 1999, Section 38(1)(a) was done prior to commencement of the development. On 3 March 2016 Eskom reported to the EC PHRA and ArchaeoMaps, in accordance with the NHRA 1999, Section 35(3), on faunal remains uncovered during the course of pylon (pole) foundation excavations. The Eskom report was made with direct reference to the faunal remains being possible human remains, resultantly (possibly) formally protected by the NHRA 1999, Section 36(3)(c). In response to the Eskom report the EC PHRA requested an ASI to be conducted. Eskom, through Royal Haskoning DHV, appointed ArchaeoMaps to conduct the ASI. The ASI was done on 24 March 2016, in the company of Eskom and Hermanuskraal community representatives.

The Archaeological Site Inspection -

- Project Name & Locality: Koukamma Electrification Project, Hermanuskraal, Kou-Kamma Local Municipality, Eastern Cape [1:50,000 Map Ref 3324CC].
- Summary of Findings:
- Faunal remains uncovered during Eskom pylon (pole) foundation excavations are non-human and taxonomically classed as Bovid III (domestic cattle). Two of the three bones comprise cut pieces, with cut marks also visible on the long bone, designating the selected number of bones as food remains. Excavations did not impact on any heritage resources, as defined and protected by the NHRA 1999 and it is recommended that development proceed without any alteration or amendment to the power line alignment.
- [In the event of any incidental archaeological or cultural heritage resources, as defined and protected by the NHRA 1999, being
 encountered during the course of development the process described in Appendix A: 'Heritage Protocol for Incidental Finds during
 the Construction Phase' should be followed.]

Heritage Compliance Summary							
Map Code	Site	Co-ordinates	Recommendations				
Koukamma E	Koukamma Electrification Project, Hermanuskraal, Kou-Kamma Local Municipality, Eastern Cape						
Eskom pylon	Uncovered faunal remains reported on during excavation	S33°59'34.5"; E24°04'04.8"	Faunal remains are non-human and taxonomically classed as Bovid III (domestic cattle) – it is recommended that development proceed according to the original line route alignment.				
НКС-1	Cemetery	S33°59'34.5"; E24°04'05.1"	Conservation (community consultation with Kou-Kamma Local Municipality underway)				
HKC-2	Cemetery	\$33°59'26.7"; E24°04'02.6"	Conservation (community consultation with Kou-Kamma local Municipality underway)				

Recommendations –

With reference to archaeological and cultural heritage compliance, as per the requirements of the NHRA 1999, it is recommended that the proposed *Koukamma Electrification Project*, Hermanuskraal, Kou-Kamma Local Municipality, Eastern Cape, proceed without the developer having to comply with additional heritage compliance requirements.

The EC PHRA (APM Unit) HIA Comment will state legal requirements for development to proceed, or reasons why, from a heritage perspective, development may not be further considered.

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Heritage Protocol for Incidental Finds during the Construction Phase

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 The Koukamma Electrification Project, Hermanuskraal, Kou-Kamma Local Municipality, Eastern Cape, comprises the installation of 22kV powerlines in the Hermanuskraal area to provide household electricity to residents. In accordance with the National Environmental Management Act, No 107 of 1998 (NEMA 1998) – Regulations 2014, the project proponent, Eskom Holdings (Pty) Ltd (Eskom), received exemption from Environmental Authorization (EA), but no Phase 1 Heritage Impact Assessment (HIA), in accordance with the National Heritage Resources Act, No 25 of 1999 (NHRA 1999), Section 38(1)(a) was done prior to commencement of the development. On 3 March 2016 Eskom reported to the Eastern Cape Heritage Resources Authority (EC PHRA) and ArchaeoMaps, in accordance with the NHRA 1999, Section 35(3), on faunal remains uncovered during the course of pylon (pole) foundation excavations. The Eskom report was made with direct reference to the faunal remains being possible human remains; resultantly (possibly) formally protected by the NHRA 1999, Section 36(1), 36(3)(b) and Section 36(3)(c). In response to the Eskom report the EC PHRA requested an Archaeological Site Inspection (ASI) to be conducted. Eskom, through Royal Haskoning DHV, appointed ArchaeoMaps to conduct the ASI. The ASI was done on 24 March 2016, in the company of Eskom and Hermanuskraal community representatives.

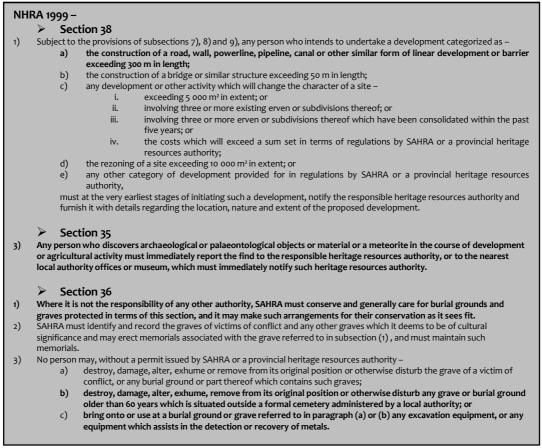


Figure 1: Extracts from the NHRA 1999, Section 38, 35 and 36

 Methodology Statement: The ASI was conducted on 24 March 2016, with fieldwork conducted by the author. GPS coordinates were taken with a Garmin Montana 650 (Datum: WGS84). Photographic documentation was done with a Pentax K20D camera. A combination of Garmap and Google Earth software was used in the display of spatial

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Archaeological Site Inspection – Purported Grave Site: Koukamma Electrification Project, Hermanuskraal, Kou-Kamma Local Municipality, Eastern Cape
ArchaeoMaps

information. Archaeological and cultural heritage site significance assessment and associated mitigation recommendations were done according to the combined NHRA 1999, Section 7(1) and SAHRA (2007) system.

SAHRA / EC PHRA Archaeological and Cultural Heritage Site Significance Assessment						
Site Significance	Field Rating	Grade	Recommended Mitigation			
High Significance	National Significance	Grade I	Site conservation / Site development			
High Significance	Provincial Significance	Grade II	Site conservation / Site development			
High Significance	Local Significance	Grade III-A	Site conservation or extensive mitigation prior to development / destruction			
High Significance	Local Significance	Grade III-B	Site conservation or extensive mitigation prior to development / destruction			
High / Medium Significance	Generally Protected A	Grade IV-A	Site conservation or mitigation prior to development / destruction			
Medium Significance	Generally Protected B	Grade IV-B	Site conservation or mitigation / test excavation / systematic sampling / monitoring prior to or during development / destruction			
Low Significance	Generally Protected C	Grade IV-C	On-site sampling, monitoring or no archaeological mitigation required prior to or during development / destruction			

 Table 1: SAHRA / EC PHRA archaeological and cultural heritage site significance assessment ratings and associated mitigation

 recommendations

Faunal remains uncovered during Eskom pylon (pole) foundation excavations are non-human and taxonomically classed as Bovid III (domestic cattle). Two of the three bones comprise cut pieces, with cut marks also visible on the long bone, designating the selected number of bones as food remains. Excavations did not impact on any heritage resources, as defined and protected by the NHRA 1999 and it is recommended that development proceed without any alteration or amendment to the power line alignment.

Faunal remains were found in direct proximity to a known cemetery, labelled Site HKC-1. A further cemetery labelled Site HKC-2 is situated approximately 250m north, north-west of the Eskom excavation and Site HKC-1. No formal conservation measures are in place at the cemeteries, but the Hermanuskraal community is in consultation with the Kou-Kamma Local Municipality to address vegetation impact on the cemeteries, associated with formal conservation (permanent fence with access gate) thereof.

2.1) Faunal Remains / Eskom Pylon Foundation Excavation – S33°59'34.5"; E24°04'04.8"

Faunal remains uncovered were temporarily conserved, on-site, at the excavation, by means of a temporary fence with the excavation having been covered. Excavation at the time of the site inspection comprised an approximate 1x1x0.3m pit. Faunal remains came from the eastern section of the excavation, at a depth of approximately 50-60cm below ground level (bgl). Uncovered remains comprise the total of the find; no further remains were found *in situ* section of the excavation. Collected remains constitute a total of three pieces, two of which are evident cut pieces, with further cut marks identified on the long bone after cleaning, designating the selected number of bones as food remains. Faunal remains are taxonomically classed as Bovid III (domestic cattle).

Uncovered remains were collected and are housed at the ArchaeoMaps office. Should the EC PHRA require further faunal / forensic analysis remains will be submitted to a suitable university or police forensic department. The community requested that faunal remains be returned and accordingly dealt with should analysis indicate the remains of human origin; in the event of the remains being of non-human origin (as is the case) community consensus centered on disposal of the remains.

Discovery of the faunal remains resulted in Eskom having had preliminary considered alternative route alignments in the vicinity of the find. Confirmation of the faunal remains as non-human negates further consideration of line route realignment. With specific reference to proximity of the Eskom pylon position to identified cemetery site, Site HKC-1, with the closest grave being situated approximately 7-10m east of the pylon position and within the generally sensitive zone around old cemeteries, with reference to possible unmarked graves or graves where grave demarcations have been impacted or destroyed by human or natural agents, it is recommended that pylon (pole) foundation excavation continue in the exact position as not sensitive.

2.2) Site HKC-1: Cemetery – S33°59'34.5"; E24°04'05.1"

The Site HKC-1 cemetery is situated in the non-indigenous forested area to the immediate east of the abovementioned Eskom pylon (pole) position. Thick vegetation have impacted on graves; many of which are difficult to discern, but basically characterized, stylistically, by earth mound and headstone demarcated graves. The cemetery contains approximately 80 graves (Pers. Comm.: Christiaan Goede, Hermanuskraal community). The community is currently in discussion with the Kou-Kamma Local Municipality to address vegetation impact on the graves and to have the cemetery formally conserved (permanently fenced with an access gate).

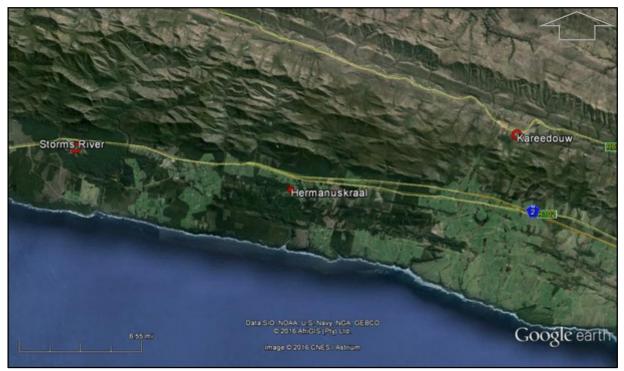
The closest of the graves are situated no more than 7-10m from the Eskom pylon (pole) position; development should caution against impact on possible non-demarcated graves, considering close proximity of the alignment to the cemetery.

 Site Significance Rating: Site HKC-1 is assigned a SAHRA / EC PHRA High / Medium Significance and a Generally Protected IV-A Field Rating. The site will be conserved in accordance with the Kou-Kamma Local Municipality-Hermanuskraal community agreement, with consultation regarding the agreement currently underway.

2.3) Site HKC-2: Cemetery - S33°59'26.7"; E24°04'02.6"

The Site HKC-2 cemetery is situated approximately 250m north, north-west of the Eskom excavation and Site HKC-1, with the cemetery comprising approximately 70 graves (Pers. Comm.: Christiaan Goede, Hermanuskraal community) and situated immediately adjacent to the access road, allowing a maximum approximate 1.5m conservation buffer between graves and the access road alignment and with general services having had already impacted negatively on a grave. Graves situated further west from the access road alignment have been negatively impacted by vegetation.

 Site Significance Rating: Site HKC-2 is assigned a SAHRA / EC PHRA High / Medium Significance and a Generally Protected IV-A Field Rating. The site will be conserved in accordance with the Kou-Kamma Local Municipality-Hermanuskraal community agreement, with consultation regarding the agreement currently underway.



Map 1: General locality of Hermanuskraal, Kou-Kamma Local Municipality, Eastern Cape



Map 2: Locality of Eskom pylon excavations in relation to Hermanuskraal



Map 3: Localities of cemetery site HKC-1 and HKC-2 in relation to the Eskom pylon excavation



Map 4: Close-up of the Eskom pylon excavation in relation to cemetery HKC-1



Plate 1: Eskom pylon foundation excavation with recovered faunal remains



Plate 2: Close-up of identified faunal remains



Plate 3: A grave from cemetery site HKC-1 [1]



Plate 4: A grave from cemetery site HKC-1[2]



Plate 5: Graves situated within the HKC-1 cemetery site



Plate 6: A grave from cemetery site HKC-2



Plate 7: General view of the HKC-2 line of graves adjacent to the access road



Plate 8: Selected graves from cemetery site HKC-2



Plate 9: Close-up of collected faunal remains [1]



Plate 10: Close-up of collected faunal remains [2]

With reference to archaeological and cultural heritage compliance, as per the requirements of the NHRA 1999, it is recommended that the proposed *Koukamma Electrification Project*, Hermanuskraal, Kou-Kamma Local Municipality, Eastern Cape, proceed without the developer having to comply with additional heritage compliance requirements.

- Faunal remains uncovered during Eskom pylon (pole) foundation excavations are non-human and taxonomically classed as Bovid III (domestic cattle). Two of the three bones comprise cut pieces, with cut marks also visible on the long bone, designating the selected number of bones as food remains. Excavations did not impact on any heritage resources, as defined and protected by the NHRA 1999 and it is recommended that development proceed without any alteration or amendment to the power line alignment.
- [In the event of any incidental archaeological or cultural heritage resources, as defined and protected by the NHRA 1999, being encountered during the course of development the process described in Appendix C: 'Heritage Protocol for Incidental Finds during the Construction Phase' should be followed.]

Heritage Compliance Summary							
Map Code	Site	Co-ordinates	Recommendations				
Koukamma E	Koukamma Electrification Project, Hermanuskraal, Kou-Kamma Local Municipality, Eastern Cape						
Eskom pylon	Uncovered faunal remains reported on during excavation	S33°59'34.5"; E24°04'04.8"	Faunal remains are non-human and taxonomically classed as Bovid III (domestic cattle) – it is recommended that development proceed according to the original line route alignment.				
HKC-1	Cemetery	S33°59'34.5"; E24°04'05.1"	Conservation (community consultation with Kou-Kamma Local Municipality underway)				
HKC-2	Cemetery	S33°59'26.7"; E24°04'02.6"	Conservation (community consultation with Kou-Kamma local Municipality underway)				

 Table 2:
 Heritage compliance summary for the Koukamma Electrification Project, Hermanuskraal, Kou-Kamma Local Municipality, Eastern

 Cape
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The EC PHRA (APM Unit) HIA Comment will state legal requirements for development to proceed, or reasons why, from a heritage perspective, development may not be further considered.

- 2. South African Government. 1999 (No 25 of). National Heritage Resources Act.
- 3. South African Heritage Resources Agency. 2007. Minimum Standards for the Archaeological and Heritage Components of Impact Assessments. (Unpublished guidelines.)

^{1.} South African Government. 1998 (No 107 of). National Environmental Management Act.

Heritage Protocol for Incidental Finds during the Construction Phase

Should any palaeontological, archaeological or cultural heritage resources, including human remains / graves, as defined and protected by the NHRA 1999, be identified during the construction phase of development (including as a norm during vegetation clearing, surface scraping, trenching and excavation phases), it is recommended that the process described below be followed.

> On-site Reporting Process:

- 1. The identifier should immediately notify his / her supervisor of the find.
- 2. The identifier's supervisor should immediately (and within 24 hours after reporting by the identifier) report the incident to the on-site SHE / SHEQ officer.
- 3. The on-site SHE / SHEQ officer should immediately (and within 24 hours after reporting by the relevant supervisor) report the incident to the appointed ECO / ELO officer. [Should the find relate to human remains the SHE / SHEQ officer should immediately notify the nearest SAPS station informing them of the find].
- 4. The ECO / ELO officer should ensure that the find is within 72 hours after the SHE / SHEQ officers report reported on SAHRIS and that a relevant heritage specialist is contacted to make arrangements for a heritage site inspection. [Should the find relate to human remains the ECO / ELO officer should ensure that the archaeological site inspection coincides with a SAPS site inspection, to verify if the find is of forensic, authentic (informal / older than 60 years), or archaeological (older than 100 years) origin].
- 5. The appointed heritage specialist should compile a 'heritage site inspection' report based on the site specific findings. The site inspection report should make recommendations for the destruction, conservation or mitigation of the find and prescribe a recommended way forward for development. The 'heritage site inspection' report should be submitted to the ECO / ELO, who should ensure submission thereof on SAHRIS.
- 6. SAHRA / the relevant PHRA will state legal requirements for development to proceed in the SAHRA / PHRA Comment on the 'heritage site inspection' report.
- 7. The developer should proceed with implementation of the SAHRA / PHRA Comment requirements. SAHRA / PHRA Comment requirements may well stipulate permit specifications for development to proceed.
 - Should permit specifications stipulate further Phase 2 archaeological investigation (including grave mitigation) a suitably accredited heritage specialist should be appointed to conduct the work according to the applicable SAHRA / PHRA process. The heritage specialist should apply for the permit. Upon issue of the SAHRA / PHRA permit the Phase 2 heritage mitigation program may commence.
 - Should permit specifications stipulate destruction of the find under a SAHRA / PHRA permit the developer should immediately proceed with the permit application. Upon the issue of the SAHRA / PHRA permit the developer may legally proceed with destruction of the palaeontological, archaeological or cultural heritage resource.
 - Upon completion of the Phase 2 heritage mitigation program the heritage specialist will submit a Phase 2 report to the ECO / ELO, who should in turn ensure submission thereof on SAHRIS. Report recommendations may include that the remainder of a heritage site be destroyed under a SAHRA / PHRA permit.
 - Should the find relate to human remains of forensic origin the matter will be directly addressed by the SAPS: A SAHRA / PHRA permit will not be applicable.

<u>NOTE:</u> Note that SAHRA / PHRA permit and process requirements relating to the mitigation of human remains requires suitable advertising of the find, a consultation, mitigation and re-internment / deposition process.

Duties of the Supervisor:

- 1. The supervisor should immediately upon reporting by the identifier ensure that all work in the vicinity of the find is ceased.
- 2. The supervisor should ensure that the location of the find is immediately secured (and within 12 hours of reporting by the identifier), by means of a temporary conservation fence (construction netting) allowing for a 5-10m heritage conservation buffer zone around the find. The temporary conserved area should be sign-posted as a 'No Entry Heritage Site' zone.
- 3. Where development has impacted on the resource, no attempt should be made to remove artefacts / objects / remains further from their context, and artefacts / objects / remains that have been removed should be collected and placed within the conservation area or kept for safekeeping with the SHE / SHEQ officer. It is imperative that where development has impacted on palaeontological, archaeological and cultural heritage resources the context of the find be preserved as good as possible for interpretive and sample testing purposes.

4. The supervisor should record the name, company and capacity of the identifier and compile a brief report describing the events surrounding the find. The report should be submitted to the SHE / SHEQ officer at the time of the incident report.

> Duties of the SHE / SHEQ Officer:

- 1. The SHE / SHEQ officer should ensure that the location of the find is recorded with a GPS. A photographic record of the find (including implementation of temporary conservation measures) should be compiled. Where relevant a scale bar or object that can indicate scale should be inserted in photographs for interpretive purposes.
- 2. The SHE / SHEQ officer should ensure that the supervisors report, GPS co-ordinate and photographic record of the find be submitted to the ECO / ELO officer. [Should the find relate to human remains the SHE / SHEQ officer should ensure that the mentioned reporting be made available to the SAPS at the time of the incident report].
- 3. Any retrieved artefacts / objects / remains should, in consultation with the ECO / ELO officer, be deposited in a safe place (preferably on-site) for safekeeping.

> Duties of the ECO / ELO officer:

- 1. The ECO / ELO officer should ensure that the incident is reported on SAHRIS. (The ECO / ELO officer should ensure that he / she is registered on the relevant SAHRIS case with SAHRIS authorship to the case at the time of appointment to enable heritage reporting].
- 2. The ECO / ELO officer should ensure that the incident report is forwarded to the heritage specialist for interpretive purposes at his / her soonest opportunity and prior to the heritage site inspection.
- 3. The ECO / ELO officer should facilitate appointment of the heritage specialist by the developer / construction consultant for the heritage site inspection.
- 4. The ECO / ELO officer should facilitate access by the heritage specialist to any retrieved artefacts / objects / remains that have been kept in safekeeping.
- 5. The ECO / ELO officer should facilitate coordination of the heritage site inspection and the SAPS site inspection in the event of a human remains incident report.
- 6. The ECO / ELO officer should facilitate heritage reporting and heritage compliance requirements by SAHRA / the relevant PHRA, between the developer / construction consultant, the heritage specialist, the SHE / SHEQ officer (where relevant) and the SAPS (where relevant).

> Duties of the Developer / Construction Consultant:

The developer / construction consultant should ensure that an adequate heritage contingency budget is accommodated within the project budget to facilitate and streamline the heritage compliance process in the event of identification of incidental palaeontological, archaeological and cultural heritage resources during the course of development, including as a norm during vegetation clearing, surface scraping, trenching and excavation phases, when resources not visible at the time of the surface assessment may well be exposed.