

Archaeological Site Inspection –

**Cemetery Site BSK-01, Farm 318/21, Eskom Grassridge-Kudu-Melkhout 132kV Power Line
Rebuilding Project, near Jeffrey's Bay, Kouga Local Municipality, Eastern Cape**

- 11 August 2015 -

Report to:

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Specialist Declaration of Interest

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.



Signature –

- 11 August 2015 -

Cemetery Site BSK-01, Farm 318/21, Eskom Grassridge-Kudu-Melkhout 132kV Power Line Rebuilding Project, near Jeffrey's Bay, Kouga Local Municipality, Eastern Cape

Executive Summary

Summary –

ArchaeoMaps have been appointed by Royal Haskoning DHV, on behalf of Eskom, to manage heritage compliance requirements, including an ASI and relevant reporting to Eskom and the EC PHRA with reference to cemetery site BSK-01, identified during the course of construction of the Authorized rebuilding of the 132kV Grassridge-Kudu-Melkhout power line development, Kouga Local Municipality, Eastern Cape.

Site BSK-01 comprises a cemetery site with a counted number of 111 graves, and an estimated total of 130-140 graves, situated at general co-ordinate S33°56'08.8"; E24°58'22.0", on the property Farm 318/21, near Jeffrey's Bay, Kouga Local Municipality, Eastern Cape. Site size measures approximately 160x80m, with graves characterized by weathered stone cairn dressings. Selected graves are roughly north-east / south-west oriented, but grave orientation seemingly not a prime parameter, however less discernible due to the weathered and overgrown state of the graves. Site BSK-01 is inferred to well pre-date 60 years of age, based on the decayed state of the graves and the lack of local information, including preliminary consultation with both the landowner and local farm workers, neither of which were aware of the presence of the cemetery nor has any information regarding individuals buried at the site. Culturally the site may be ascribed either to Khoekhoe, LSA pastoral or LIA burial practice. Site BSK-01 cross-cuts the existing Eskom servitude, dating back at least to the late 1960's. The already Authorized rebuilding development include the construction of a steel lattice tower situated fairly centrally within the cemetery site. Development is at an advanced stage, with a project completion date of end October 2015.

ToR for the ASI included:

- To conduct an ASI at Site BSK-01 and make relevant recommendations for management or mitigation of the site to Eskom and the EC PHRA with reference to the already Authorized development project, with specific cognisance to the advanced stage of development and a project completion date of end October 2015.

Four (4) possible development options have been identified, including:

- 1) **OPTION A:** Relocation of the steel lattice structure to outside the Site BSK-01 cemetery boundary, but within the Eskom servitude. Phase 2 exhumation and relocation of the cemetery, with specific reference to power lines within the servitude cross-cutting the airspace above the cemetery would need to be addressed in retrospect. The development option is pending technical standards by Eskom, currently under investigation.
- 2) **OPTION B:** Special consent from the EC PHRA to proceed with on-site archaeological monitoring and emergency excavation during construction of the steel lattice tower within its planned locale. Archaeological monitoring and mitigation will need to be done under an EC PHRA permit. Two (2) graves are situated in proximity to the tower position, namely E2 and E37. Full mitigation and relocation of the graves to proceed in retrospect.
- 3) **OPTION C:** Realignment of the power line alignment in the vicinity of Site BSK-01. Development would require a new BAR to be commissioned. In the event of realignment it would be preferable to realign all Eskom lines in the vicinity of the cemetery, if not, heritage requirements may still need to be addressed in retrospect with lines still cross-cutting the airspace above the cemetery.
- 4) **OPTION D:** Standard Phase 2 mitigation and relocation of the grave / cemetery site, including that no work proceed at the site until heritage compliance requirements (Phase 2 exhumation and relocation) have been met.

Siyavuya and Eskom are commended for prompt reporting and compliance to heritage requirements during the course of construction.

Recommendations –

It is recommended that based on prompt reporting and adherence to heritage compliance requirements during the course of construction, with specific reference to the planned project completion date of end October 2015, the project be prioritized by the EC PHRA, with specific reference to preferred mitigation options A and B.

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

Contents

1 – Introduction and Terms of Reference (ToR)	4
2 – The Basic Assessment Report (BAR) and Reporting of Site BSK-01	5
2.1) The Environmental Impact Assessment (EIA) process and Basic Assessment Report (BAR)	5
2.2) Reporting on Site BSK-01	6
2.3) Site BSK-01 (S33°56’08.8’’; E24°58’22.0’’) – Site Description and Recommendations	7
2.4) Pre-feasibility Information and Local Consultation	15
2.5) Preliminary Site Date Estimation	15
2.6) Legalities, Process, Permits / Permissions and Authorizations	16
3 – Recommendations	17
4 – References	18

List of Maps:

Map 1: The Grassridge-Kudu-Melkhout in situ rebuilding of the 132kV power line development layout (SiVest 2013)	5
Map 2: General locality of Farm 318/21, Kouga Local Municipality, Eastern Cape [1:50,000 Map Ref – 3324DD]	8
Map 3: General locality of Farm 318/21, Kouga Local Municipality, Eastern Cape	9
Map 4: Site BSK-01, Farm 318/21.....	9
Map 5: General locality of Site BSK-01, situated on the north-western portion of Farm 318/21.....	10
Map 6: Close-up of Site BSK-01, Farm 318/21, indicating the distribution of recorded grave features across the site locale	10
Map 7: General locality of the steel lattice tower position in relation to identified grave stone cairn demarcations.....	11

List of Plates:

Plate 1: General view of Site BSK-01[1].....	12
Plate 2: General view of Site BSK-01[2].....	12
Plate 3: General view of Site BSK-01[3].....	12
Plate 4: General view of Site BSK-01[4].....	12
Plate 5: View of selected graves [1]	13
Plate 6: View of selected graves [2].....	13
Plate 7: View of selected graves [3].....	13
Plate 8: View of selected graves [4]	13
Plate 9: View of selected graves [5].....	14
Plate 10: View of selected graves [6].....	14
Plate 11: View of selected graves [7]	14
Plate 12: View of selected graves [8]	14

List of Tables:

Table 1: NHRA 1999, Section 38	6
Table 2: Site BSK-01: Stone cairn features situated within the site boundary	11

1 – Introduction and Terms of Reference (ToR)

ArchaeoMaps have been appointed by Royal Haskoning DHV, on behalf of Eskom, to manage heritage compliance requirements, including an Archaeological Site Inspection (ASI) and relevant reporting to Eskom and the Eastern Cape Provincial Heritage Resources Authority (EC PHRA) with reference to cemetery site BSK-01, identified during the course of construction of the Authorized rebuilding of the 132kV Grassridge-Kudu-Melkhout power line development, Kouga Local Municipality, Eastern Cape.

Site BSK-01 comprises a cemetery site with a counted number of 111 graves, and an estimated total of 130-140 graves, situated at general co-ordinate S33°56'08.8"; E24°58'22.0", on the property Farm 318/21, near Jeffrey's Bay, Kouga Local Municipality, Eastern Cape. Site size measures approximately 160x80m, with graves characterized by weathered stone cairn dressings. Selected graves are roughly north-east / south-west oriented, but grave orientation seemingly not a prime parameter, however less discernible due to the weathered and overgrown state of the graves. Site BSK-01 is inferred to well pre-date 60 years of age, based on the decayed state of the graves and the lack of local information, including preliminary consultation with both the landowner and local farm workers, neither of which were aware of the presence of the cemetery nor has any information regarding individuals buried at the site. Culturally the site may be ascribed either to Khoe, Later Stone Age (LSA) pastoral or Later Iron Age (LIA) burial practice. Site BSK-01 cross-cuts the existing Eskom servitude, dating back at least to the late 1960's. The already Authorized rebuilding development include the construction of a steel lattice tower situated fairly centrally within the cemetery site. Development is at an advanced stage, with a project completion date of end October 2015.

Terms of Reference (ToR) for the ASI included:

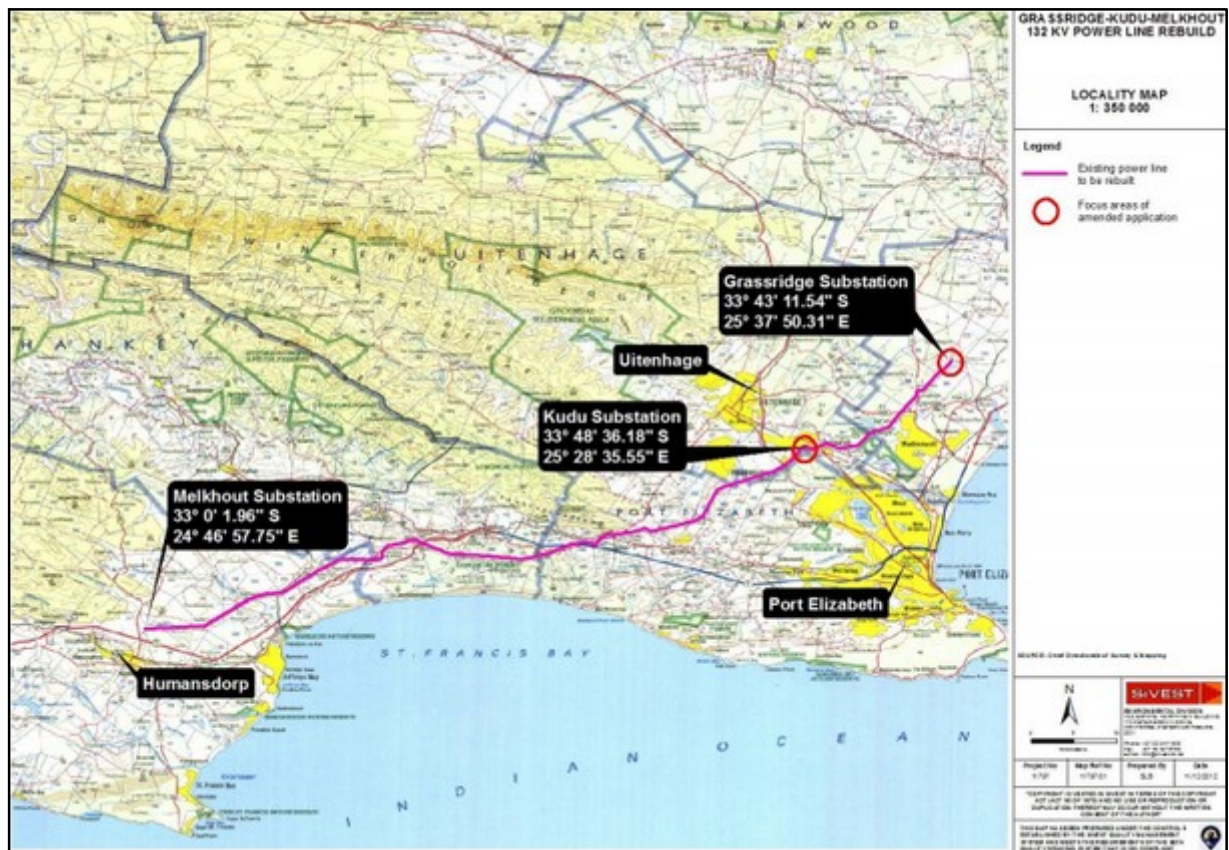
- 5) To conduct an ASI at Site BSK-01 and make relevant recommendations for management or mitigation of the site to Eskom and the EC PHRA with reference to the already Authorized development project, with specific cognisance to the advanced stage of development and a project completion date of end October 2015.

2 – The Basic Assessment Report (BAR) and Reporting of Site BSK-01

2.1) The Environmental Impact Assessment (EIA) process and Basic Assessment Report (BAR)

SiVest (2013) provides a basic project description of the development in the BAR, Section A1 as: 'The planned process of rebuilding will be to build the double circuit power line within the same footprint as the existing wood pole structures. The wood pole structures will be removed, and the new steel lattice towers will be built along the same centre line. In addition, two new portions of 132kV power line will need to be constructed to allow the additional circuit to bypass Kudu substation, and enter Grassridge substation. The proposed project is to consist of the following activities:

1. The rebuilding of the existing 132kV line, with a double circuit 132kV overhead power line from the existing Grassridge substation to the Melkhout-Harvard substation, via Kudu substation (**which does not require Environmental Authorization**).
2. The construction of two new portions of 132kV power line near Kudu substation (550m long bypass), and near Grassridge substation (250m long turn-in power line) (**which does not require Environmental Authorization**).'



Map 1: The Grassridge-Kudu-Melkhout in situ rebuilding of the 132kV power line development layout (SiVest 2013)

Discrepancy exist between exemption from Environmental Authorization (EA) in terms of the National Environmental Management Act, No 107 of 1998 (NEMA 1998) and relevant Regulations (NEMA Regulations 2010) and heritage compliance for development purposes as stipulated in the National Heritage Resources Act, No 25 of 1999 (NHRA 1999), Section 38(1), with reference to development types that need to submit a Notification of Intent to Develop (NID) to the relevant heritage agency / authority, being the Eastern Cape Provincial Heritage Resources Authority (EC PHRA) for all Eastern Cape developments, for commenting purposes. [Aside from specified NID requirements for the development, as per the NHRA

1999, Section 38(1)(a), an identified concern in the BAR process include the NID by SiVest to the South African Heritage Resources Agency (SAHRA), instead of to the ECPHRA].

NHRA 1999, Section 38	
1)	Subject to the provisions of subsections 7), 8) and 9), any person who intends to undertake a development categorized as –
a)	the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300 m in length;
b)	the construction of a bridge or similar structure exceeding 50 m in length;
c)	any development or other activity which will change the character of a site –
	i. exceeding 5 000 m ² in extent; or
	ii. involving three or more existing erven or subdivisions thereof; or
	iii. involving three or more erven or subdivisions thereof which have been consolidated within the past five years; or
	iv. the costs which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
d)	the rezoning of a site exceeding 10 000 m ² in extent; or
e)	any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority,
	must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

Table 1: NHRA 1999, Section 38

Despite the fact that the BAR indicates that the NHRA 1999 were consulted, including a completed section on cultural / historical features (BAR, Section B6), the section was not completed in consultation with a specialist heritage consultant and no specialist assessment was commissioned. The BAR, Section B6, states that ‘no signs of culturally or historically significant elements,... including Archaeological or Palaeontological sites’ are situated within or in direct proximity to the proposed development alignment. Accordingly the section indicates that no heritage permit is necessary for development to proceed.

The BAR, Section D2(e), makes clear recommendations for the heritage process to be followed in the event of heritage resources being identified or uncovered during the course of development. It states: ‘If any of the following are uncovered during the construction phase: fossil bones, stone artefacts, cultural material such as historic glass, ceramics etc., sub-surface structures, graves, then the appropriate heritage authorities (in this case SAHRA (?)) should be notified immediately. The contractor must stop work until mitigation has been undertaken.’

2.2) Reporting on Site BSK-01

In accordance with the BAR, Section D2(e), stipulation, electrical contractor Siyavuya reported to Eskom on the presence of grave like features situated within the development corridor between the Kudu and Melkhout substations, near Mondplaas, just north of Jefferey’s Bay. The initial report included the identification of approximately 30 identified stone piled features, situated within the existing Eskom servitude, with features located on and in direct proximity to a steel lattice tower position. At the time of the identification of the site, with development at an advanced stage, with specific reference to the project completion date of end October 2015, the majority of supporting poles had already been planted. Limited construction impact had occurred at the site locale; however, all work in the vicinity of the grave-like features was immediately ceased following the identification thereof.

Upon reporting by Siyavuya, Eskom appointed Royal Haskoning DHV to manage the required archaeological process. Royal Haskoning DHV appointed ArchaeoMaps to conduct an archaeological site inspection and ensure heritage compliant reporting to the EC PHRA. The archaeological site inspection was conducted on Wednesday 5 August 2015, in the company of Eskom and Siyavuya representatives.

2.3) Site BSK-01 (S33°56'08.8"; E24°58'22.0") – Site Description and Recommendations

Site BSK-01 is situated at general co-ordinate S33°56'08.8"; E24°58'22.0", with the said co-ordinate being also the position of the planned Eskom steel lattice tower. The site measures approximately 160x80m in size, situated on the north-eastern portion of Farm 318/21, near Jeffereys Bay, Kouga Local Municipality, Eastern Cape.

The site is characterized by a number of graves, with a total of 111 graves counted during the site inspection, but with a rough estimate of actual grave numbers being in the region of 130-140, making the site significantly more prominent than originally anticipated. Graves are randomly scattered across the general cemetery locale, without any specified order or orientation, typical of earlier traditional Khoe or Later Iron Age practice. Graves are marked by stone cairns, with stones for grave dressings having been sourced from the immediate environment. The site is situated within the existing Eskom servitude, and cross-cutting the servitude both to the north, north-west and south, south-east. A current clearing of approximately 6x6m may well have impacted on graves, having resulted in the removal of any stone demarcations that may have been present within the cleared area. Early development within the Eskom servitude, with existing power lines dating back to the late 1960's may well have resulted in impact on graves; selected stone piles may well be the result of former low impact construction activities. Early development within the Eskom servitude pre-dates current environmental (NEMA 1998) and heritage (NHRA 1999) legislation and it is uncertain whether development proceeded with cognisance to the cemetery, simply ensuring that poles were not plated within the site, or if the current heritage conservation status quo is incidental.

Natural weathering have taken its toll on the site, many a stone cairn is settled to surface level only, while numerous stone clusters are characterized by stone cairn disturbance, resulting in rough piles of stone only, with stones in cases running along small erosion gullies that formed in the immediate vicinity of these graves. Many graves have been impacted by vegetation – having resulted in overgrown stone piles as the only remains and indicator of grave sites.

A rough north-east / south-west (or east-west) orientation were detected amongst some graves. However, surface grave orientation seems not to have diligently followed a specified orientation. Orientation detection is further hampered by the decayed state of many grave dressings.

Primary concern at present is centred on heritage compliant site measures with respect to the project completion date of end October 2015.

OPTION A:

- Eskom is investigating the possibility of relocation of the steel lattice structure, currently planned fairly centrally within the site, to be relocated outside the site boundary; the feasibility of which is based on technical standards and requirements of the power line itself.
- Should relocation of the steel lattice structure be feasible, it is recommended that this be considered as a first mitigation option, with specific reference to the project completion date. However, relocation of the steel lattice structure does not resolve current requirements with reference to cemetery conservation standards, including not only physical impact on the site itself but also the airspace above it, based on cultural landscape, aesthetic and spiritual principles. Relocation of the steel lattice structure to outside the boundary of Site BSK-01 will need to be subject to Phase 2 mitigation / grave relocation to be done at least in retrospect to development.

OPTION B:

- Option B centres on development of the steel lattice structure at the planned locale, with the proposal based on special consent from the EC PHRA, with direct reference to due reporting by Siyavuya and Eskom. Requirements would include on-site archaeological monitoring and emergency mitigation at the time of development, under an EC PHRA permit. The current position of the steel lattice structure will not impact on any identified grave, but graves E2 and E37 are in direct proximity to the footprint of the structure. In the event of impact on these graves, mitigation thereof can proceed at the time of the structure construction.

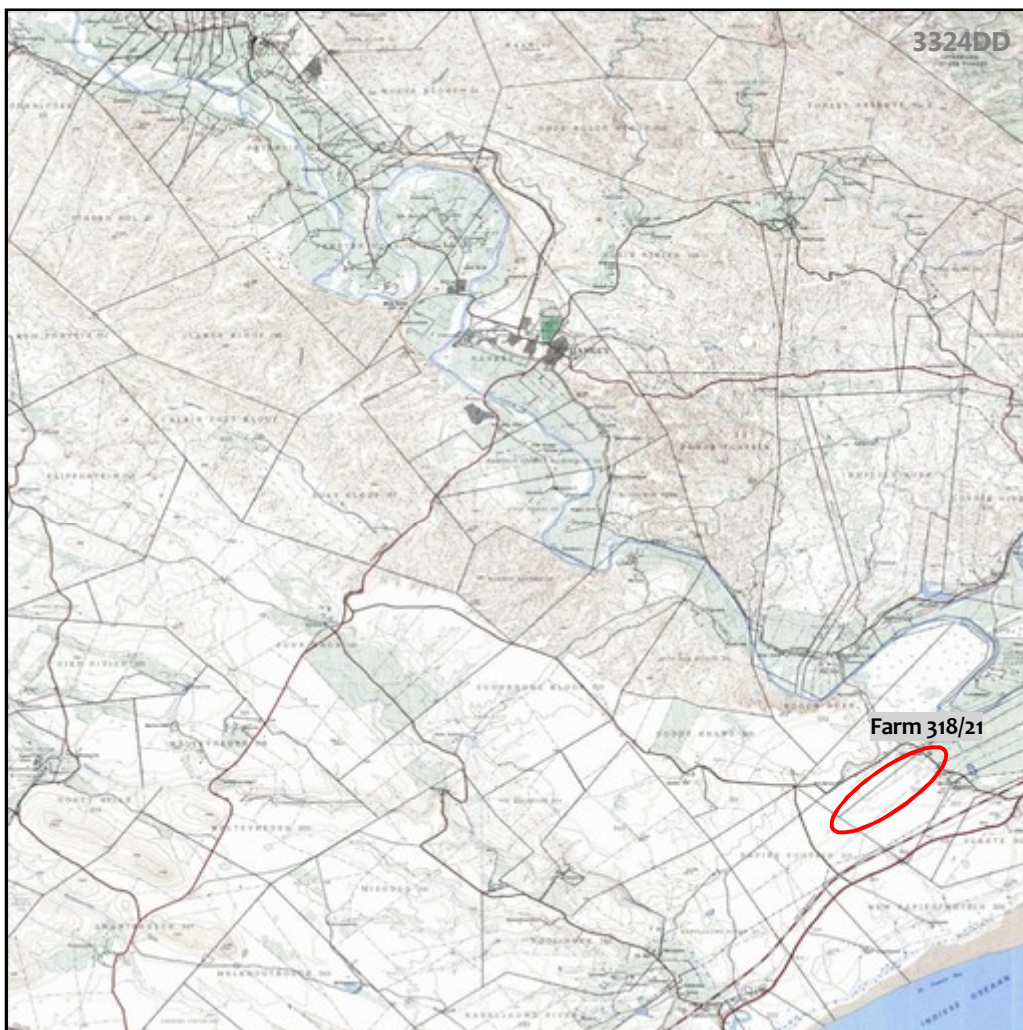
- Option B would need to be followed by retrospective full Phase 2 mitigation / grave relocation to address concerns of development in relation to the site, including both physical impact on the cemetery and the concern of power lines running across the airspace above it.

OPTION C:

- Option C addresses standard requirements for realignment to ensure conservation of the site. As a norm a 20-50m conservation buffer is required around a cemetery site to meet heritage requirements. Late identification of Site BSK-01 coined with the fact that the rebuilding application was restricted to the existing Eskom servitude comes with additional concerns should re-alignment be considered. Firstly, realignment of the Eskom power line around Site BSK-01 would require a new environmental application and BAR, including negotiation of a new Eskom servitude for construction thereof. Secondly, realignment of the rebuilding development does not address the concern of existing power lines crossing above the airspace of the cemetery. A proposal for realignment would effectively require realignment of all line routes, or alternatively still include retrospective mitigation of the cemetery site.

OPTION D:

- Option D includes standard mitigatory requirements, comprising the ceasure of all development works in the vicinity of Site BSK-01 until such time as full compliance with exhumation and re-internment requirements has been met.



Map 2: General locality of Farm 318/21, Kouga Local Municipality, Eastern Cape [1:50,000 Map Ref – 3324DD]



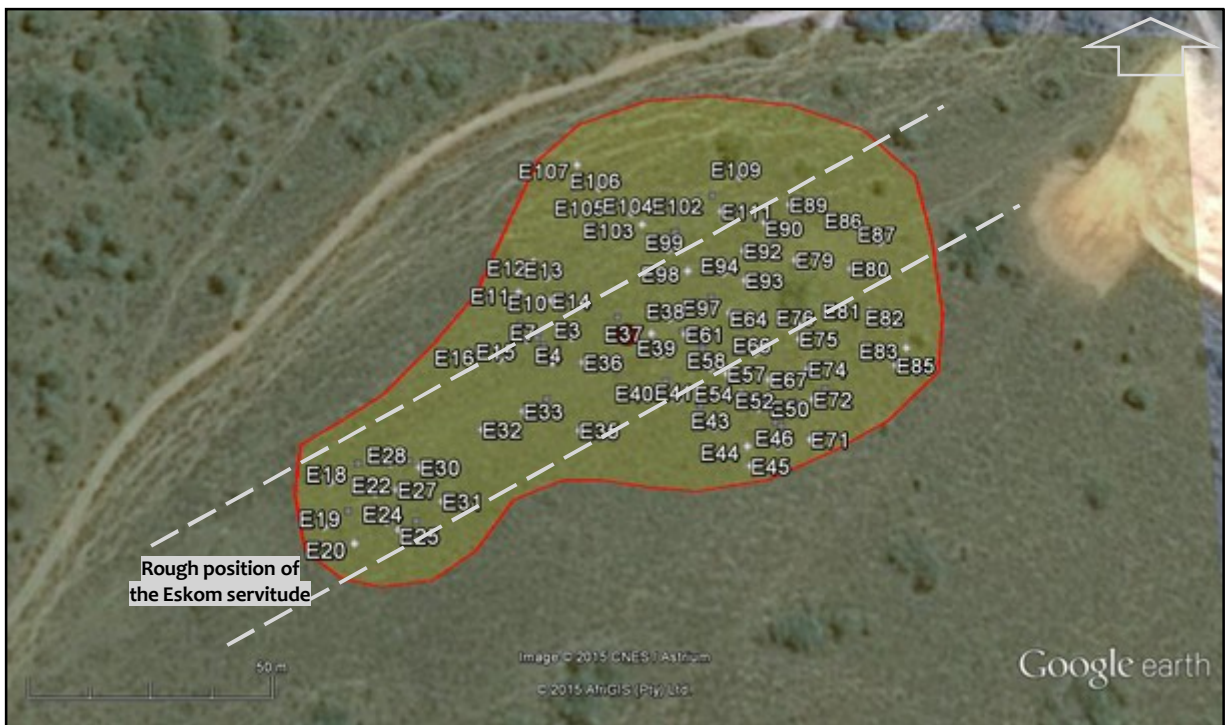
Map 3: General locality of Farm 318/21, Kougga Local Municipality, Eastern Cape



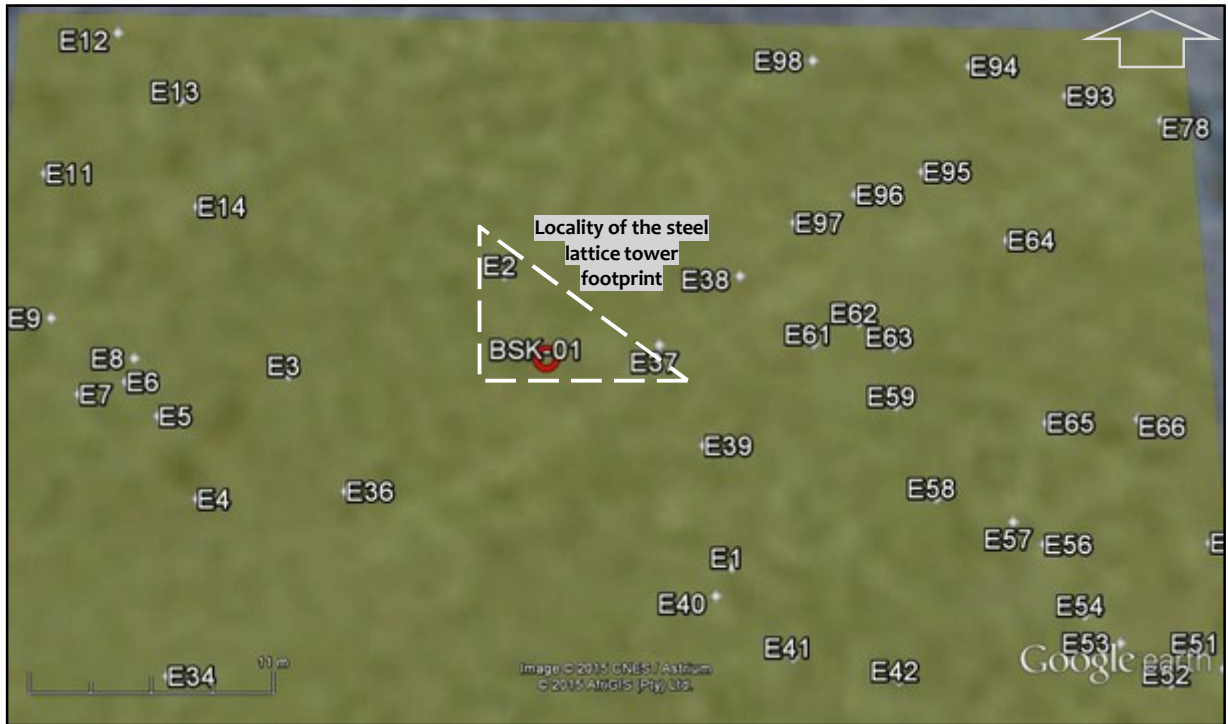
Map 4: Site BSK-01, Farm 318/21



Map 5: General locality of Site BSK-01, situated on the north-western portion of Farm 318/21



Map 6: Close-up of Site BSK-01, Farm 318/21, indicating the distribution of recorded grave features across the site locale



Map 7: General locality of the steel lattice tower position in relation to identified grave stone cairn demarcations

Site BSK-01 (S33°56'08.5"; E24°58'22.0"): Stone cairn features situated within the site boundary							
E1	S33°56'09.1"; E24°58'22.4"	E31	S33°56'10.0"; E24°58'20.6"	E61	S33°56'08.8"; E24°58'22.5"	E91	S33°56'08.0"; E24°58'23.3"
E2	S33°56'08.7"; E24°58'21.9"	E32	S33°56'09.5"; E24°58'20.8"	E62	S33°56'08.7"; E24°58'22.6"	E92	S33°56'08.1"; E24°58'23.0"
E3	S33°56'08.8"; E24°58'21.5"	E33	S33°56'09.4"; E24°58'21.2"	E63	S33°56'08.8"; E24°58'22.7"	E93	S33°56'08.3"; E24°58'23.0"
E4	S33°56'09.0"; E24°58'21.4"	E34	S33°56'09.3"; E24°58'21.4"	E64	S33°56'08.6"; E24°58'22.9"	E94	S33°56'08.3"; E24°58'22.8"
E5	S33°56'08.9"; E24°58'21.3"	E35	S33°56'09.5"; E24°58'21.7"	E65	S33°56'08.9"; E24°58'23.0"	E95	S33°56'08.5"; E24°58'22.7"
E6	S33°56'08.9"; E24°58'21.2"	E36	S33°56'09.0"; E24°58'21.6"	E66	S33°56'08.9"; E24°58'23.1"	E96	S33°56'08.5"; E24°58'22.6"
E7	S33°56'08.9"; E24°58'21.1"	E37	S33°56'08.8"; E24°58'22.2"	E67	S33°56'09.0"; E24°58'23.3"	E97	S33°56'08.6"; E24°58'22.5"
E8	S33°56'08.8"; E24°58'21.2"	E38	S33°56'08.7"; E24°58'22.4"	E68	S33°56'09.1"; E24°58'23.4"	E98	S33°56'08.3"; E24°58'22.5"
E9	S33°56'08.8; E24°58'21.1"	E39	S33°56'08.9; E24°58'22.3"	E69	S33°56'09.2"; E24°58'23.5"	E99	S33°56'08.1"; E24°58'22.3"
E10	S33°56'08.6"; E24°58'21.0"	E40	S33°56'08.2"; E24°58'22.3"	E70	S33°56'09.4"; E24°58'23.4"	E100	S33°56'08.0"; E24°58'22.4"
E11	S33°56'08.5"; E24°58'21.0"	E41	S33°56'09.2"; E24°58'22.2"	E71	S33°56'09.5"; E24°58'23.6"	E101	S33°56'07.9"; E24°58'22.4"
E12	S33°56'08.3"; E24°58'21.2"	E42	S33°56'09.3"; E24°58'22.7"	E72	S33°56'09.2"; E24°58'23.6"	E102	S33°56'07.8"; E24°58'22.2"
E13	S33°56'08.4"; E24°58'21.3"	E43	S33°56'09.4"; E24°58'22.8"	E73	S33°56'09.1"; E24°58'23.7"	E103	S33°56'08.0"; E24°58'22.1"
E14	S33°56'08.6"; E24°58'21.3"	E44	S33°56'09.5"; E24°58'23.1"	E74	S33°56'09.0"; E24°58'23.6"	E104	S33°56'07.9"; E24°58'22.0"
E15	S33°56'09.0"; E24°58'20.9"	E45	S33°56'09.7"; E24°58'23.1"	E75	S33°56'08.7"; E24°58'23.5"	E105	S33°56'07.8"; E24°58'21.8"
E16	S33°56'09.0"; E24°58'20.8"	E46	S33°56'09.5"; E24°58'23.4"	E76	S33°56'08.6"; E24°58'23.5"	E106	S33°56'07.7"; E24°58'21.7"
E17	S33°56'09.8"; E24°58'19.8"	E47	S33°56'09.4"; E24°58'23.4"	E77	S33°56'08.6"; E24°58'23.3"	E107	S33°56'07.6"; E24°58'21.5"
E18	S33°56'10.0"; E24°58'19.6"	E48	S33°56'09.4"; E24°58'23.3"	E78	S33°56'08.4"; E24°58'23.2"	E108	S33°56'07.7"; E24°58'22.7"
E19	S33°56'10.3"; E24°58'19.6"	E49	?	E79	S33°56'08.2"; E24°58'23.5"	E109	S33°56'07.6"; E24°58'22.9"
E20	S33°56'10.4"; E24°58'19.9"	E50	S33°56'09.2"; E24°58'23.3"	E80	S33°56'08.2"; E24°58'23.9"	E110	S33°56'07.8"; E24°58'23.0"
E21	S33°56'10.2"; E24°58'19.8"	E51	S33°56'09.2"; E24°58'23.2"	E81	S33°56'08.5"; E24°58'24.1"	E111	S33°56'07.8"; E24°58'22.8"
E22	S33°56'10.0"; E24°58'20.0"	E52	S33°56'09.3"; E24°58'23.2"	E82	S33°56'08.6"; E24°58'24.3"		
E23	S33°56'09.9"; E24°58'19.9"	E53	S33°56'09.2"; E24°58'23.1"	E83	S33°56'08.8"; E24°58'24.4"		
E24	S33°56'10.2"; E24°58'20.1"	E54	S33°56'09.2"; E24°58'23.0"	E84	S33°56'08.9"; E24°58'24.6"		
E25	S33°56'10.3"; E24°58'20.2"	E55	?	E85	S33°56'08.9"; E24°58'24.4"		
E26	S33°56'10.2"; E24°58'20.3"	E56	S33°56'09.1"; E24°58'22.9"	E86	S33°56'07.8"; E24°58'23.9"		
E27	S33°56'10.0"; E24°58'20.2"	E57	S33°56'09.0"; E24°58'22.9"	E87	S33°56'08.0; E24°58'24.2"		
E28	S33°56'09.8"; E24°58'20.1"	E58	S33°56'09.0"; E24°58'22.7"	E88	?		
E29	S33°56'09.8"; E24°58'20.2"	E59	S33°56'08.9"; E24°58'22.7"	E89	S33°56'07.7"; E24°58'23.4"		
E30	S33°56'09.8"; E24°58'20.3"	E60	S33°56'08.7"; E24°58'22.5"	E90	S33°56'07.9"; E24°58'23.2"		

Table 2: Site BSK-01: Stone cairn features situated within the site boundary



Plate 1: General view of Site BSK-01[1]



Plate 3: General view of Site BSK-01[3]



Plate 2: General view of Site BSK-01[2]



Plate 4: General view of Site BSK-01[4]



Plate 5: View of selected graves [1]



Plate 7: View of selected graves [3]



Plate 6: View of selected graves [2]



Plate 8: View of selected graves [4]



Plate 9: View of selected graves [5]



Plate 11: View of selected graves [7]



Plate 10: View of selected graves [6]



Plate 12: View of selected graves [8]

2.4) Pre-feasibility Information and Local Consultation

Brief pre-feasibility information indicates 6 SAHRIS cases recorded within approximately 5km from Site BSK-01. SAHRIS CaselD's 2468 and 2473 are mining applications for which archaeological reports have not as yet been submitted on SAHRIS. Archaeological reports are available for SAHRIS CaselD's 1649 and 7631 and SAHRIS MapID cases 00754 and 03026, with relevant reports referenced as:

- Binneman, J. (Albany Museum). 2006. *Phase 1 Archaeological Heritage Impact Assessment for the Proposed Development of Portion 5 of the Farm Die Woud No 500 in the Thornhill District*. (SAHRIS MapID 00754).
- Binneman, J. (ECHC). 2008. *Phase 1 Archaeological Heritage Impact Assessment for the Proposed 'St. Francis Coastal Reserve' on Portions of the Remainder of the Farm New Papiessfontein No. 320, Kouga Municipality, District of Humansdorp, Eastern Cape*. (SAHRIS MapID 03026).
- Binneman, J. (ECHC). 2011. *Environmental Impact Assessment for the Proposed Ubuntu Wind Energy Project near Jeffrey's Bay, Eastern Cape: Draft Environmental Impact Assessment. Chapter 11. Impact on Archaeology*. (SAHRIS CaselD 1649).
- Binneman, J., Booth, C. & Higgit, N. (Albany Museum). 2011. *An Archaeological Desktop Study and Phase 1 Archaeological Impact Assessment (AIA) for the Proposed Clidet Data Cable between Bloemfontein, Orange Free State and Graaf Reinet, Eastern Cape Province; Colesberg, Free State and Port Elizabeth, Eastern Cape Province; George, Western Cape Province and Port Elizabeth, Eastern Cape Province; and Aliwal North and East London, Eastern Cape Province*. (SAHRIS Report).
- Booth, C. (Booth Heritage Consulting). 2015. *Addendum: Archaeological and Heritage Investigation of Proposed deviations on Repeater Sites for an Environmental Authorization Amendment for Fibreco Route 4 (George to Port Elizabeth) and 5 (Port Elizabeth to Durban)*. (SAHRIS CaselD 7631).

A total of 48 sites were reported on by Binneman (2008) during his survey of the 'St Francis Coastal Reserve', the majority of which comprise Later Stone Age (LSA) shell midden sites, characterized by a variety of shell food remain types, more than often in direct association with stone tool deposits and in cases with ceramic. Sites were variously ascribed a San, Khoe and KhoiSan origin. Site distribution indicated a concentration of sites on the coastal dune fields, but situated also further inland. A number of Middle Stone Age (MSA) occurrences, mostly in a disturbed context were also identified, with identified deposits situated primarily further inland on the study site. Further disturbed MSA deposits were also identified during assessment of the Ubuntu Wind Energy project study site (Binneman 2011). A number of primarily Historical / Colonial Period buildings and memorials were reported on, specifically with reference to Route 4, between George and Port Elizabeth during the Clidet data cable survey (Binneman et. al. 2011). According to the SAHRIS CaselD 7631 addendum map information (Booth 2015) the line route runs in fair proximity (approximately 500m-1km) south-east of the Eskom servitude in the vicinity of Site BSK-01. The cemetery site was accordingly not identified or reported on in these archaeological survey reports.

Accurate identification and due reporting by Eskom electrical contractor Siyavuya thus need to be commended. The Siyavuya identification of the site was followed by brief consultation with the landowner and farm workers, neither of which were aware of the presence of the site, or had any additional information regarding the possible identities of persons buried at the site.

2.5) Preliminary Site Date Estimation

Based on the absence of site information from preliminary consultation by Siyavuya with the landowner and the local community, indicating that neither were aware of the presence of the site, the settled state of stone cairn grave demarcations and the impact of natural weathering on the graves, it can reasonably be inferred that the Site BSK-01 cemetery well pre-dates 60 years of age, implying that the site can be classified as an informal cemetery pre-dating 60 years of age, making the site and management thereof the legal mandatory responsibility of the ECHPRA, under the NHRA 1999.

2.6) Legalities, Process, Permits / Permissions and Authorizations

Relocation of the site will be subject to a permit issued by the EC PHRA in terms of the NHRA 1999, Section 36, and the NHRA 1999 Regulations 2000(b), Chapter IX. The EC PHRA Burial Ground and Graves (BGG) process requires compulsory social consultation coincided with public advertising of the process to precede any excavation of human remains. Where local tradition requires community requirements associated with acceptable ceremonial values need to be addressed. The permit is to be applied for on behalf of the developer by a professional, accredited archaeologist. Minimum requirements include services for transportation and reburial by a certified undertaker.

Additional legislation that would apply to a permit issued by the EC PHRA BGG Unit in terms of the NHRA 1999, Section 36 includes, but is not necessarily limited to the:

- o Eastern Cape Exhumations Act, No 4 of 2004 (ECEA 2004);
- o Human Tissues Act, No 65 of 1983 (as amended), (HTA 1983);
- o National Health Act, No 61 of 2003 (NHA 2003);
- o Removal of Graves and Dead Bodies Ordinance, No 7 of 1925 (Ord. RGDBO 1925); and
- o Exhumations Ordinance, No 12 of 1980 (Ord. EO 1980).

In accordance with requirements of the above listed, exhumation and relocation of graves comprising the Site BSK-01 cemetery site would be subject to permits / permissions / authorizations from:

- o The National Department of Health;
- o The Eastern Cape Department of Health;
- o The Kouga Local Municipality; and
- o The South African Police Service (SAPS).

3 – Recommendations

It is recommended that based on prompt reporting and adherence to heritage compliance requirements during the course of construction, with specific reference to the planned project completion date of end October 2015, associated with the national need for power supply, the project be prioritized by the EC PHRA, with specific reference to preferred mitigation options A and B.

Four (4) possible development options have been identified with reference to the identified cemetery, Site BSK-01 (S33°56'08.8"; E24°58'22.0"), Farm 318/21, near Jeffereys Bay, Kouga Local Municipality, Eastern Cape, including:

- 1) **OPTION A:** Relocation of the steel lattice structure to outside the Site BSK-01 cemetery boundary, but within the Eskom servitude. Phase 2 exhumation and relocation of the cemetery, with specific reference to power lines within the servitude cross-cutting the airspace above the cemetery would need to be addressed in retrospect. The development option is pending technical standards by Eskom, currently under investigation.
- 2) **OPTION B:** Special consent from the EC PHRA to proceed with on-site archaeological monitoring and emergency excavation during construction of the steel lattice tower within its planned locale. Archaeological monitoring and mitigation will need to be done under an EC PHRA permit. Two (2) graves are situated in proximity to the tower position, namely E2 and E37. Full mitigation and relocation of the graves to proceed in retrospect.
- 3) **OPTION C:** Realignment of the power line alignment in the vicinity of Site BSK-01. Development would require a new BAR to be commissioned. In the event of realignment it would be preferable to realign all Eskom lines in the vicinity of the cemetery, if not, heritage requirements may still need to be addressed in retrospect with lines still cross-cutting the airspace above the cemetery.
- 4) **OPTION D:** Standard Phase 2 mitigation and relocation of the grave / cemetery site, including that no work proceed at the site until heritage compliance requirements (Phase 2 exhumation and relocation) have been met.

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

❖ Assessor Qualification & Accreditation:

Karen van Ryneveld (ArchaeoMaps):

- 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 300 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).

4 – References

- 1) Binneman, J. (ECHC). 2008. *Phase 1 Archaeological Heritage Impact Assessment for the Proposed 'St. Francis Coastal Reserve' on Portions of the Remainder of the Farm New Papiessfontein No. 320, Kouga Municipality, District of Humansdorp, Eastern Cape.*
- 2) Binneman, J. (ECHC). 2011. *Environmental Impact Assessment for the Proposed Ubuntu Wind Energy Project near Jeffrey's Bay, Eastern Cape: Draft Environmental Impact Assessment. Chapter 11. Impact on Archaeology.*
- 3) Binneman, J., Booth, C. & Higgit, N. (Albany Museum). 2011. *An Archaeological Desktop Study and Phase 1 Archaeological Impact Assessment (AIA) for the Proposed Clidet Data Cable between Bloemfontein, Orange Free State and Graaf Reinet, Eastern Cape Province; Colesberg, Free State and Port Elizabeth, Eastern Cape Province; George, Western Cape Province and Port Elizabeth, Eastern Cape Province; and Aliwal North and East London, Eastern Cape Province.*
- 4) Booth, C. (Booth Heritage Consulting). 2015. *Addendum: Archaeological and Heritage Investigation of Proposed deviations on Repeater Sites for an Environmental Authorization Amendment for Fibreco Route 4 (George to Port Elizabeth) and 5 (Port Elizabeth to Durban).*
- 5) SiVest. 2013. Eskom Holdings SOC Limited. *Rebuilding of the 132kV Power Line between Grassridge and Melkhout Substations near Port Elizabeth, Eastern Cape Province. Amended Basic Assessment Report.*
- 6) South African Government. (No. 107 of) 1998. *National Environmental Management Act.*
- 7) South African Government. (No. 25 of) 1999. *National Heritage Resources Act.*