

HERITAGE SCREENER

CTS Reference Number:	CTS18_097
SAHRA Reference:	12894
Client:	EnviroAfrica
Date:	31 August 2018
Title:	Proposed development of a 25m high telecommunication mast on Erf 542, Main Road, Kleinsee, Northern Cape.

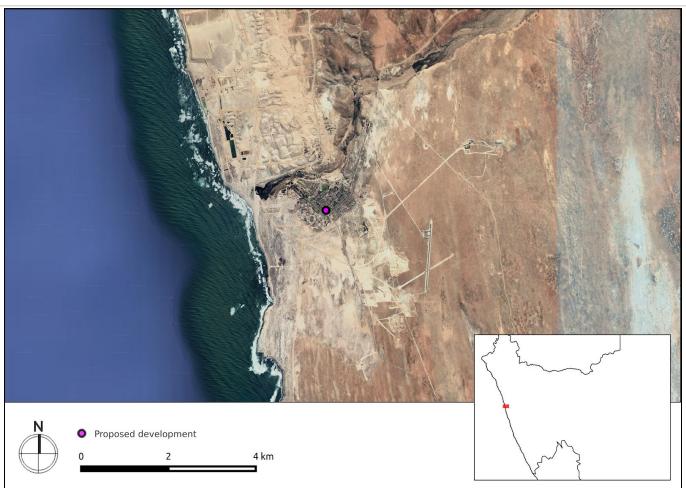


Figure 1a. Satellite map indicating the location of the proposed development in the Western Cape Province

Recommendation by CTS Heritage Specialists

RECOMMENDATION:

The heritage resources in the area proposed for development are sufficiently recorded.

Due to the location and nature of the proposed development, it is unlikely that significant heritage resources will be impacted by the establishment of the proposed 25m telecommunications mast and as such, it is recommended that no further heritage studies are required.



1. Proposed Development Summary

Proposed development of a 25m high telecommunication mast on Erf 542, Main Road, Kleinsee, Northern Cape.

2. Application References

Name of relevant heritage authority(s)	SAHRA
Name of decision making authority(s)	

3. Property Information

Latitude / Longitude	-29.678895796 / 17.0697392437
Erf number / Farm number	Erf 542
Local Municipality	Nama Khoi
District Municipality	Namakwa
Previous Magisterial District	Namakwaland
Province	Northern Cape
Current Use	Residential
Current Zoning	Residential
Total Extent	NA

4. Nature of the Proposed Development

Total Surface Area	56m2
Depth of excavation (m)	>2m
Height of development (m)	25m
Expected years of operation before decommission	NA NA



5. Category of Development

X	Triggers: Section 38(8) of the National Heritage Resources Act				
	Triggers: Section 38(1) of the National Heritage Resources Act				
	1. Construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier over 300m in length.				
	2. Construction of a bridge or similar structure exceeding 50m in length.				
	3. Any development or activity that will change the character of a site-				
	a) exceeding 5 000m² in extent				
	b) involving three or more existing erven or subdivisions thereof				
	c) involving three or more erven or divisions thereof which have been consolidated within the past five years				
	4. Rezoning of a site exceeding 10 000m ²				
	5. Other (state):				

6. Additional Infrastructure Required for this Development

NA



7. Mapping (please see Appendix 3 and 4 for a full description of our methodology and map legends)

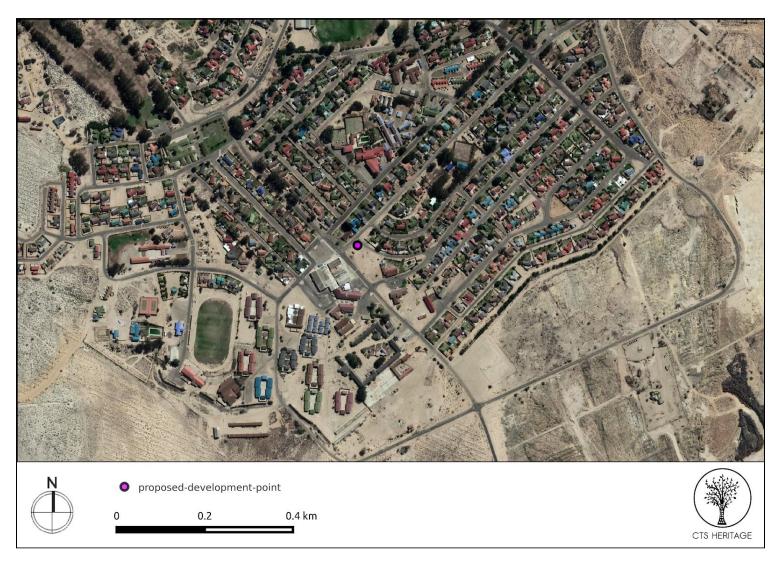


Figure 1b. Overview Map. Satellite image (2017) indicating the proposed development area at closer range.





Figure 1c. Overview Map. Satellite image (2017) indicating the proposed development area at closer range.



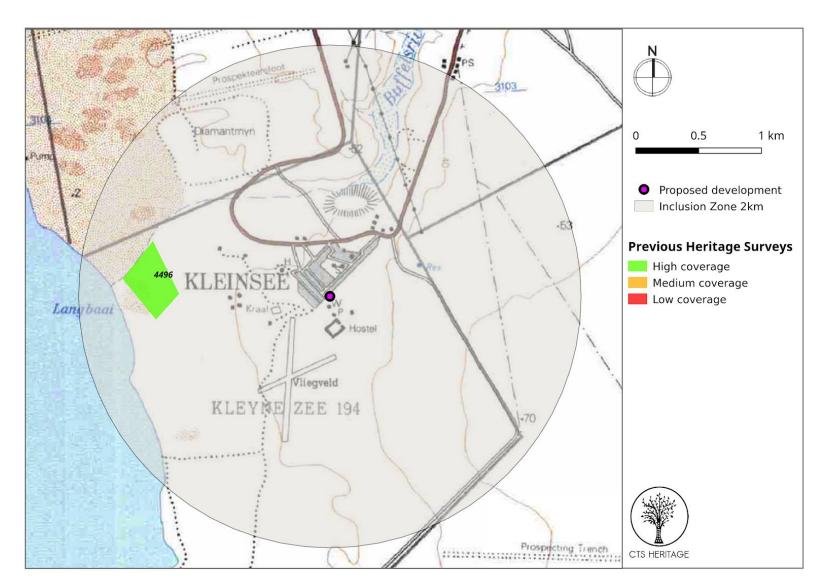


Figure 2. Previous HIAs Map. Previous Heritage Impact Assessments surrounding the proposed development area within 5km, with SAHRIS NIDS indicated. Please see Appendix 2 for full reference list.



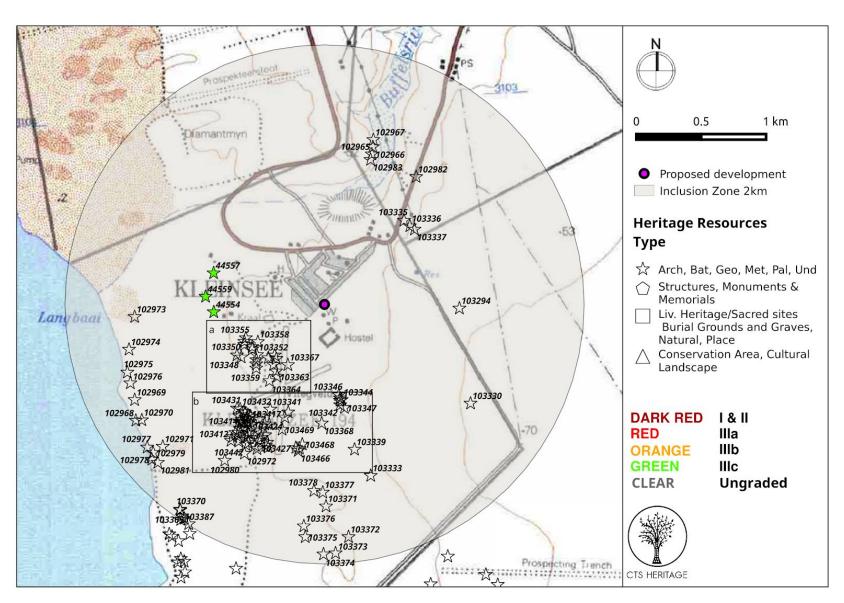


Figure 3. Heritage Resources Map. Heritage Resources previously identified in and near the study area, with SAHRIS Site IDs indicated (see Figure 3a for inset). Please See Appendix 4 for full description of heritage resource types.



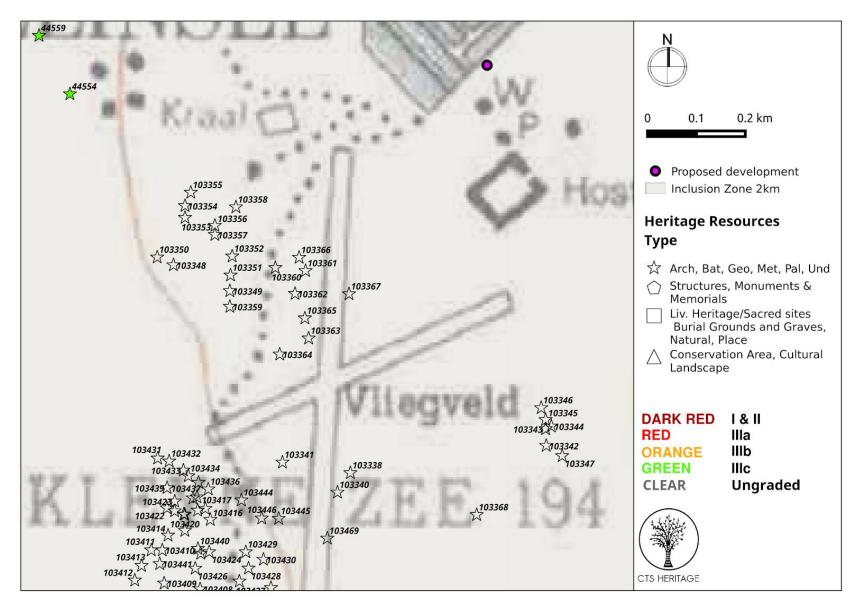


Figure 3a. Inset Map



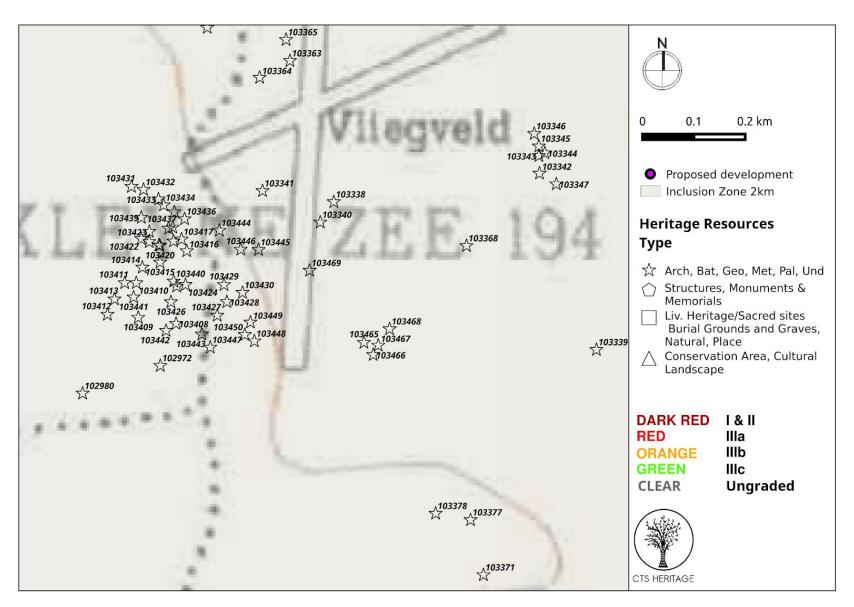


Figure 3b. Inset Map



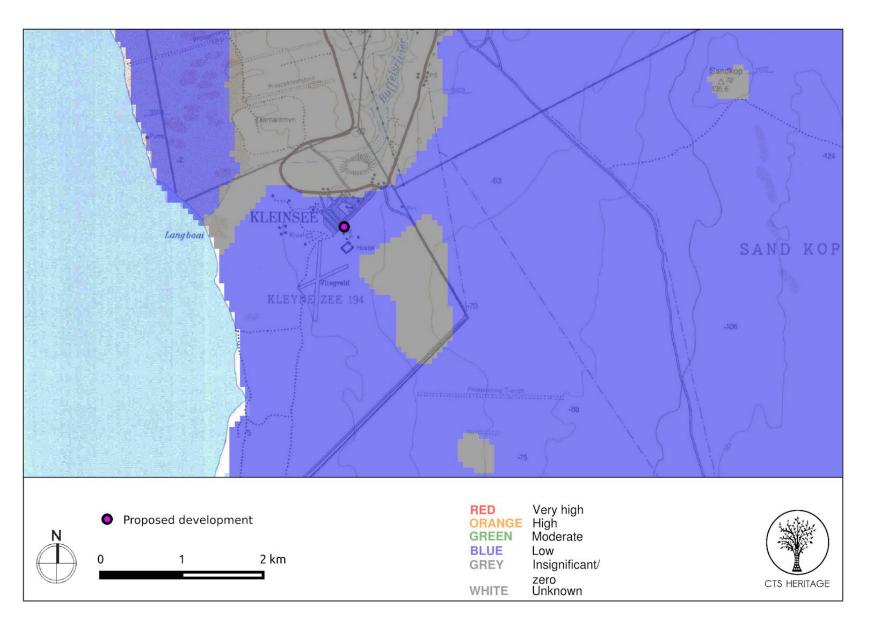


Figure 4. Palaeosensitivity Map. Indicating varied fossil sensitivity underlying the study area. Please See Appendix 3 for full guide to the legend.



8. Heritage statement and character of the area

This application is for the proposed development of a 25m high telecommunication mast on Erf 542, Main Road, Kleinsee, Northern Cape. Kleinsee was established as a small mining town in 1927. According to legend, a teacher by the name of De Villiers from the local farm school had built a new school and was looking for lime deposits with which to whitewash the walls. In his search, accompanied by a builder called Alberts, he kicked at a mound in the veld. This dislodged a diamond which was recorded as the first alluvial diamond found in this area. The resultant diamond rush opened up the Kleinsee 'crater', reminiscent of the 'Big Hole' at Kimberley and subsequently, this area became known as the Diamond Coast.

As a result of mining applications in the area, much is known about the archaeology of the region which is dominated by Early, Middle and Later Stone Age artefact scatters. In the immediate context of Kleinsee, Halkett et al (1997 SAHRIS ID 4496) conducted an impact assessment for proposed upgrades to the Kleinsee Golf Course (Figure 2). Halkett et al. identified three Later Stone Age shell midden archaeological sites and in the report, it was noted that none of the three sites contains assemblages which are considered worthy of further study. Just east of Kleinsee, a collection of Early Stone Age artefact sites was noted by De Beers mining staff in 2001. The artefacts were determined to be deflating from the soil vestiges onto the more resistant hardpan deposits below and were therefore were no longer *in situ* (Halkett et al. 2002 SAHRIS NID 4482). These artefacts were collected and contribute to the record of archaeological resources from this area. In addition, a number of archaeological sites located to the south west of Kleinsee have been recorded by Orton (2016) on SAHRIS and are noted in Appendix 1, however no information is available regarding the nature or significance of these archaeological resources. As per Figure 2, the proposed mast will be established within the urban edge, in an area that has been extensively previously disturbed through residential and infrastructure development. Due to the nature and location of the proposed development, it is unlikely that the establishment of the mast will impact on significant archaeological resources and as such, it is recommended that no further archaeological studies are required.

According to the SAHRIS Palaeosensitivity Map, the area proposed for development is underlain by scree/talus/alluvium grading into piedmont gravel of low palaeontological sensitivity. Further, this alluvial layer is underlain by gneiss deposits (Steinkopf and Brendewynsbank) which has zero palaeontological sensitivity (Figure 4). The bedrock underlying the site is unfossiliferous gneissic basement. The site was occupied by the late Pliocene palaeoshoreline (~3 Ma) and residual fluvio-marine gravels may be present. These are overlain by terrestrial deposits including colluvium and windblown sands. Observations in the surrounding area (John Pether) indicate that the deposits are altered by pedogenic processes involving decalcification and the precipitation of pedocrete. Fossil shells are not preserved and fossil bone is very sparse. Given the low palaeontological potential and the small excavation footprint it is improbable that fossil bones will be encountered and no additional palaeontological study is required.

RECOMMENDATION:

The heritage resources in the area proposed for development are sufficiently recorded.

Due to the location and nature of the proposed development, it is unlikely that significant heritage resources will be impacted by the establishment of the proposed 25m telecommunications mast and as such, it is recommended that no further heritage studies are required.



APPENDIX 1

List of heritage resources within the 5km Inclusion Zone

Site ID	Site no	Full Site Name	Site Type	Grading	
103294	SK2001/ESA	Sandkop	Archaeological	NA	NA
103330	SK2001/013	Sandkop	Archaeological	NA	NA
103333	SK2001/016	Sandkop	Archaeological	NA	NA
103335	SK2001/018	Sandkop	Archaeological	NA	NA
103336	SK2001/019	Sandkop	Archaeological	NA	NA
103337	SK2001/020	Sandkop	Archaeological	NA	NA
103338	SK2001/021	Sandkop	Archaeological	NA	NA
103339	SK2001/022	Sandkop	Archaeological	NA	NA
103340	SK2001/023	Sandkop	Archaeological	NA	NA
103341	SK2001/024	Sandkop	Archaeological	NA	NA
103342	SK2001/025A	Sandkop	Archaeological	NA	NA
103343	SK2001/025B	Sandkop	Archaeological	NA	NA
103344	SK2001/025C	Sandkop	Archaeological	NA	NA
103345	SK2001/025D	Sandkop	Archaeological	NA	NA
103346	SK2001/025E	Sandkop	Archaeological	NA	NA
103347	SK2001/025F	Sandkop	Archaeological	NA	NA
103348	SK2001/026	Sandkop	Archaeological	NA	NA
103349	SK2001/029	Sandkop	Archaeological	NA	NA
103350	SK2001/028	Sandkop	Archaeological	NA	NA
103351	SK2001/030	Sandkop	Archaeological	NA	NA
103352	SK2001/031	Sandkop	Archaeological	NA	NA
103353	SK2001/032	Sandkop	Archaeological	NA	NA



103354	SK2001/033	Sandkop	Archaeological	NA	NA
103355	SK2001/034	Sandkop	Archaeological	NA	NA
103356	SK2001/036	Sandkop	Archaeological	NA	NA
103357	SK2001/037	Sandkop	Archaeological	NA	NA
103358	SK2001/038	Sandkop	Archaeological	NA	NA
103359	SK2001/039	Sandkop	Archaeological	NA	NA
103360	SK2001/040	Sandkop	Archaeological	NA	NA
103361	SK2001/041	Sandkop	Archaeological	NA	NA
103362	SK2001/042	Sandkop	Archaeological	NA	NA
103363	SK2001/044	Sandkop	Archaeological	NA	NA
103364	SK2001/046	Sandkop	Archaeological	NA	NA
103365	SK2001/047	Sandkop	Archaeological	NA	NA
103366	SK2001/048	Sandkop	Archaeological	NA	NA
103367	SK2001/049	Sandkop	Archaeological	NA	NA
103368	SK2001/050	Sandkop	Archaeological	NA	NA
103369	SK2005/005	Sandkop	Archaeological	NA	NA
103370	SK2005/012	Sandkop	Archaeological	NA	NA
103371	SK2005/024	Sandkop	Archaeological	NA	NA
103372	SK2005/025	Sandkop	Archaeological	NA	NA
103373	SK2005/026	Sandkop	Archaeological	NA	NA
103374	SK2005/027	Sandkop	Archaeological	NA	NA
103375	SK2005/028	Sandkop	Archaeological	NA	NA
103376	SK2005/029	Sandkop	Archaeological	NA	NA
103377	SK2005/030	Sandkop	Archaeological	NA	NA
103378	SK2005/031	Sandkop	Archaeological	NA	NA



103387	SK2005/038	Sandkop	Archaeological	NA	NA
103388	SK2005/039	Sandkop	Archaeological	NA	NA
44554	KLNZ 01	Kleinzee 01	Shell Midden, Artefacts	Grade IIIc	NA
44557	KLNZ 03	Kleinzee 03	Shell Midden, Artefacts	Grade IIIc	NA
44559	KLNZ 02	Kleinzee 02	Shell Midden	Grade IIIc	NA
103408	SK2005/057	Sandkop	Archaeological	NA	NA
103409	SK2005/058	Sandkop	Archaeological	NA	NA
103410	SK/2005059	Sandkop	Archaeological	NA	NA
103411	SK2005/060	Sandkop	Archaeological	NA	NA
103412	SK2005/061	Sandkop	Archaeological	NA	NA
103413	SK2005/062	Sandkop	Archaeological	NA	NA
103414	SK2005/063	Sandkop	Archaeological	NA	NA
103415	SK2005/064	Sandkop	Archaeological	NA	NA
103416	SK2005/065	Sandkop	Archaeological	NA	NA
103417	SK2005/066	Sandkop	Archaeological	NA	NA
103418	SK2005/067	Sandkop	Archaeological	NA	NA
103419	SK2005/068	Sandkop	Archaeological	NA	NA
103420	SK2005/069	Sandkop	Archaeological	NA	NA
103421	SK2005/070	Sandkop	Archaeological	NA	NA
103422	SK2005/071	Sandkop	Archaeological	NA	NA
103423	SK2005/072	Sandkop	Archaeological	NA	NA
103424	SK2005/073	Sandkop	Archaeological	NA	NA
103425	SK2005/074	Sandkop	Archaeological	NA	NA
103426	SK2005/075	Sandkop	Archaeological	NA	NA
103427	SK2005/076	Sandkop	Archaeological	NA	NA



103428	SK2005/077	Sandkop	Archaeological	NA	NA
103429	SK2005/078	Sandkop	Archaeological	NA	NA
103430	SK2005/079	Sandkop	Archaeological	NA	NA
103431	SK2005/080	Sandkop	Archaeological	NA	NA
103432	SK2005/081	Sandkop	Archaeological	NA	NA
103433	SK2005/082	Sandkop	Archaeological	NA	NA
103434	SK2005/083	Sandkop	Archaeological	NA	NA
103435	SK2005/084	Sandkop	Archaeological	NA	NA
103436	SK2005/085	Sandkop	Archaeological	NA	NA
103437	SK2005/086	Sandkop	Archaeological	NA	NA
103438	SK2005/087	Sandkop	Archaeological	NA	NA
103439	SK2005/088	Sandkop	Archaeological	NA	NA
103440	SK2005/089	Sandkop	Archaeological	NA	NA
103441	SK2005/090	Sandkop	Archaeological	NA	NA
103442	SK2005/091	Sandkop	Archaeological	NA	NA
103443	SK2005/092	Sandkop	Archaeological	NA	NA
103444	SK2005/093	Sandkop	Archaeological	NA	NA
103445	SK2005/094	Sandkop	Archaeological	NA	NA
103446	SK2005/095	Sandkop	Archaeological	NA	NA
103447	SK2005/096	Sandkop	Archaeological	NA	NA
103448	SK2005/097	Sandkop	Archaeological	NA	NA
103449	SK2005/098	Sandkop	Archaeological	NA	NA
103450	SK2005/099	Sandkop	Archaeological	NA	NA
103465	SK2006/001A	Sandkop	Archaeological	NA	NA
103466	SK2006/001B	Sandkop	Archaeological	NA	NA



103467	SK2006/001C	Sandkop	Archaeological	NA	NA
103468	SK2006/001D	Sandkop	Archaeological	NA	NA
103469	SK2006/002	Sandkop	Archaeological	NA	NA
102965	KZ1991/001	Kleinzee	Archaeological	NA	NA
102966	KZ1991/002	Kleinzee	Archaeological	NA	NA
102967	KZ1991/003	Kleinzee	Archaeological	NA	NA
102968	KZ1991/006	Kleinzee	Archaeological	NA	NA
102969	KZ1991/007	Kleinzee	Archaeological	NA	NA
102970	KZ1991/008	Kleinzee	Archaeological	NA	NA
102971	KZ1991/009	Kleinzee	Archaeological	NA	NA
102972	KZ1991/010	Kleinzee	Archaeological	NA	NA
102973	KZ1991/011	Kleinzee	Archaeological	NA	NA
102974	KZ1991/012	Kleinzee	Archaeological	NA	NA
102975	KZ1991/013	Kleinzee	Archaeological	NA	NA
102976	KZ1991/014	Kleinzee	Archaeological	NA	NA
102977	KZ1991/016	Kleinzee	Archaeological	NA	NA
102978	KZ1991/017	Kleinzee	Archaeological	NA	NA
102979	KZ1991/018	Kleinzee	Archaeological	NA	NA
102980	KZ1991/020	Kleinzee	Archaeological	NA	NA
102981	KZ1991/021	Kleinzee	Archaeological	NA	NA
102982	KZ1991/022	Kleinzee	Archaeological	NA	NA
102983	KZ1991/023	Kleinzee	Archaeological	NA	NA



APPENDIX 2

Reference List

	Heritage Impact Assessments				
Nid	Nid Report Type Author/s Date Title				
4496	AIA	Dave Halkett	01/11/1997	Proposed Modifications to the Golf Course at Kleinzee	
4482	AIA	Dave Halkett		An Analysis of a Randomly Collected Early Stone Age Artefact Assemblage from the Sandkop Mining Area, Kleinsee, Namaqualand	



APPENDIX 3 - Keys/Guides

Key/Guide to Acronyms

·
Archaeological Impact Assessment
Department of Agriculture and Rural Development (KwaZulu-Natal)
Department of Environmental Affairs (National)
Department of Environmental Affairs and Development Planning (Western Cape)
Department of Economic Development, Environmental Affairs and Tourism (Eastern Cape)
Department of Economic Development, Environment, Conservation and Tourism (North West)
Department of Economic Development and Tourism (Mpumalanga)
Department of economic Development, Tourism and Environmental Affairs (Free State)
Department of Environment and Nature Conservation (Northern Cape)
Department of Mineral Resources (National)
Gauteng Department of Agriculture and Rural Development (Gauteng)
Heritage Impact Assessment
Department of Economic Development, Environment and Tourism (Limpopo)
Mineral and Petroleum Resources Development Act, no 28 of 2002
National Environmental Management Act, no 107 of 1998
National Heritage Resources Act, no 25 of 1999
Palaeontological Impact Assessment
South African Heritage Resources Agency
South African Heritage Resources Information System
Visual Impact Assessment

Full guide to Palaeosensitivity Map legend

RED:	VERY HIGH - field assessment and protocol for finds is required
ORANGE/YELLOW:	HIGH - desktop study is required and based on the outcome of the desktop study, a field assessment is likely
GREEN:	MODERATE - desktop study is required
BLUE/PURPLE:	LOW - no palaeontological studies are required however a protocol for chance finds is required
GREY:	INSIGNIFICANT/ZERO - no palaeontological studies are required
WHITE/CLEAR:	UNKNOWN - these areas will require a minimum of a desktop study.



APPENDIX 4 - Methodology

The Heritage Screener summarises the heritage impact assessments and studies previously undertaken within the area of the proposed development and its surroundings. Heritage resources identified in these reports are assessed by our team during the screening process.

The heritage resources will be described both in terms of **type**:

- Group 1: Archaeological, Underwater, Palaeontological and Geological sites, Meteorites, and Battlefields
- Group 2: Structures, Monuments and Memorials
- Group 3: Burial Grounds and Graves, Living Heritage, Sacred and Natural sites
- Group 4: Cultural Landscapes, Conservation Areas and Scenic routes

and **significance** (Grade I, II, IIIa, b or c, ungraded), as determined by the author of the original heritage impact assessment report or by formal grading and/or protection by the heritage authorities.

Sites identified and mapped during research projects will also be considered.

DETERMINATION OF THE EXTENT OF THE INCLUSION ZONE TO BE TAKEN INTO CONSIDERATION

The extent of the inclusion zone to be considered for the Heritage Screener will be determined by CTS based on:

- the size of the development,
- the number and outcome of previous surveys existing in the area
- the potential cumulative impact of the application.

The inclusion zone will be considered as the region within a maximum distance of 50 km from the boundary of the proposed development.

DETERMINATION OF THE PALAEONTOLOGICAL SENSITIVITY

The possible impact of the proposed development on palaeontological resources is gauged by:

- reviewing the fossil sensitivity maps available on the South African Heritage Resources Information System (SAHRIS)
- considering the nature of the proposed development
- when available, taking information provided by the applicant related to the geological background of the area into account

DETERMINATION OF THE COVERAGE RATING ASCRIBED TO A REPORT POLYGON

Each report assessed for the compilation of the Heritage Screener is colour-coded according to the level of coverage accomplished. The extent of the surveyed coverage is labeled in three categories, namely low, medium and high. In most instances the extent of the map corresponds to the extent of the development for which the specific report was undertaken.



Low coverage will be used for:

- desktop studies where no field assessment of the area was undertaken;
- reports where the sites are listed and described but no GPS coordinates were provided.
- older reports with GPS coordinates with low accuracy ratings;
- reports where the entire property was mapped, but only a small/limited area was surveyed.
- uploads on the National Inventory which are not properly mapped.

Medium coverage will be used for

- reports for which a field survey was undertaken but the area was not extensively covered. This may apply to instances where some impediments did not allow for full coverage such as thick vegetation, etc.
- reports for which the entire property was mapped, but only a specific area was surveyed thoroughly. This is differentiated from low ratings listed above when these surveys cover up to around 50% of the property.

High coverage will be used for

reports where the area highlighted in the map was extensively surveyed as shown by the GPS track coordinates. This category will also apply to permit reports.

RECOMMENDATION GUIDE

The Heritage Screener includes a set of recommendations to the applicant based on whether an impact on heritage resources is anticipated. One of three possible recommendations is formulated:

(1) The heritage resources in the area proposed for development are sufficiently recorded - The surveys undertaken in the area adequately captured the heritage resources. There are no known sites which require mitigation or management plans. No further heritage work is recommended for the proposed development.

This recommendation is made when:

- enough work has been undertaken in the area
- it is the professional opinion of CTS that the area has already been assessed adequately from a heritage perspective for the type of development proposed

(2) The heritage resources and the area proposed for development are only partially recorded - The surveys undertaken in the area have not adequately captured the heritage resources and/or there are sites which require mitigation or management plans. Further specific heritage work is recommended for the proposed development.

This recommendation is made in instances in which there are already some studies undertaken in the area and/or in the adjacent area for the proposed development. Further studies in a limited HIA may include:

- improvement on some components of the heritage assessments already undertaken, for instance with a renewed field survey and/or with a specific specialist for the type of heritage resources expected in the area
 - compilation of a report for a component of a heritage impact assessment not already undertaken in the area



- undertaking mitigation measures requested in previous assessments/records of decision.
- (3) The heritage resources within the area proposed for the development have not been adequately surveyed yet Few or no surveys have been undertaken in the area proposed for development. A full Heritage Impact Assessment with a detailed field component is recommended for the proposed development.

Note:

The responsibility for generating a response detailing the requirements for the development lies with the heritage authority. However, since the methodology utilised for the compilation of the Heritage Screeners is thorough and consistent, contradictory outcomes to the recommendations made by CTS should rarely occur. Should a discrepancy arise, CTS will immediately take up the matter with the heritage authority to clarify the dispute.

The compilation of the Heritage Screener will not include any field assessment. The Heritage Screener will be submitted to the applicant within 24 hours from receipt of full payment. If the 24-hour deadline is not met by CTS, the applicant will be refunded in full.