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## HERITAGE SCREENER

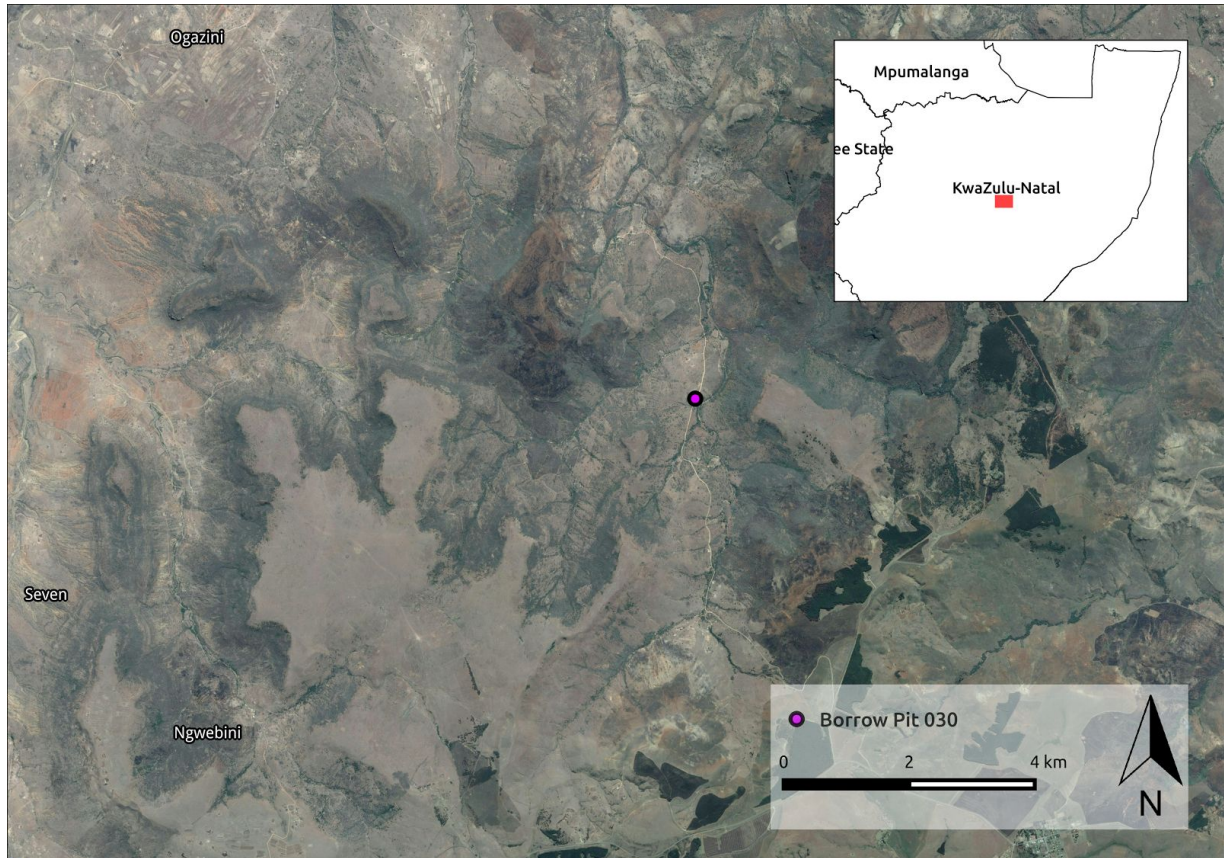
CTS Reference Number:	CTS15_031	
Client:	Green Door Environmental	
Date:	27 October 2015	
Title:	KwaZulu-Natal Ulundi Borrow Pit 30	
Recommendation by CTS Heritage Specialists: (Type 2)	<b>(2) The heritage resources and the area proposed for development are only partially recorded - The surveys undertaken in the area have not adequately captured the heritage resources. It is recommended that an Archaeological Impact Assessment be undertaken on the undisturbed part of the existing borrow pit and its extension.</b>	

Figure 1a. Satellite image with proposed development area indicated in KwaZulu-Natal

## 1. Proposed Development Summary

Green Door Environmental is undertaking the Basic Assessment Process for the formalization and expansion of borrow pits in the Ulundi and Nongoma municipalities in KwaZulu-Natal on behalf of the Department of Transport. This Heritage Screener is assessing the location of one of these borrow pits (Borrow Pit 30).

## 2. Application References

<b>Name of relevant heritage authority(s)</b>	Amafa KwaZulu-Natal
<b>Name of decision making authority(s)</b>	Department of Mineral Resources (DMR)

## 3. Property Information

<b>Farm Name and Number</b>	Farm Paardeplaar 357
<b>Local Municipality</b>	Ulundi Municipality
<b>District Municipality</b>	Babanango
<b>Previous Magisterial District</b>	Zululand
<b>Province</b>	KwaZulu-Natal
<b>Current Use</b>	Borrow pit
<b>Current Zoning</b>	Unzoned
<b>Total Extent</b>	1.115ha

## 4. Nature of the Proposed Development

<b>Surface area to be affected/destroyed</b>	1.115ha
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Depth of excavation (m)	Unknown
Height of development (m)	0
Expected years of operation before decommission	About 2 years

## 5. Category of Development

Triggers: Section 38(8) of the National Heritage Resources Act	X
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 000m <sup>2</sup> in extent	X
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 <sup>2</sup>	
5. Other (state):	

## 6. Additional Infrastructure Required for this Development

NA
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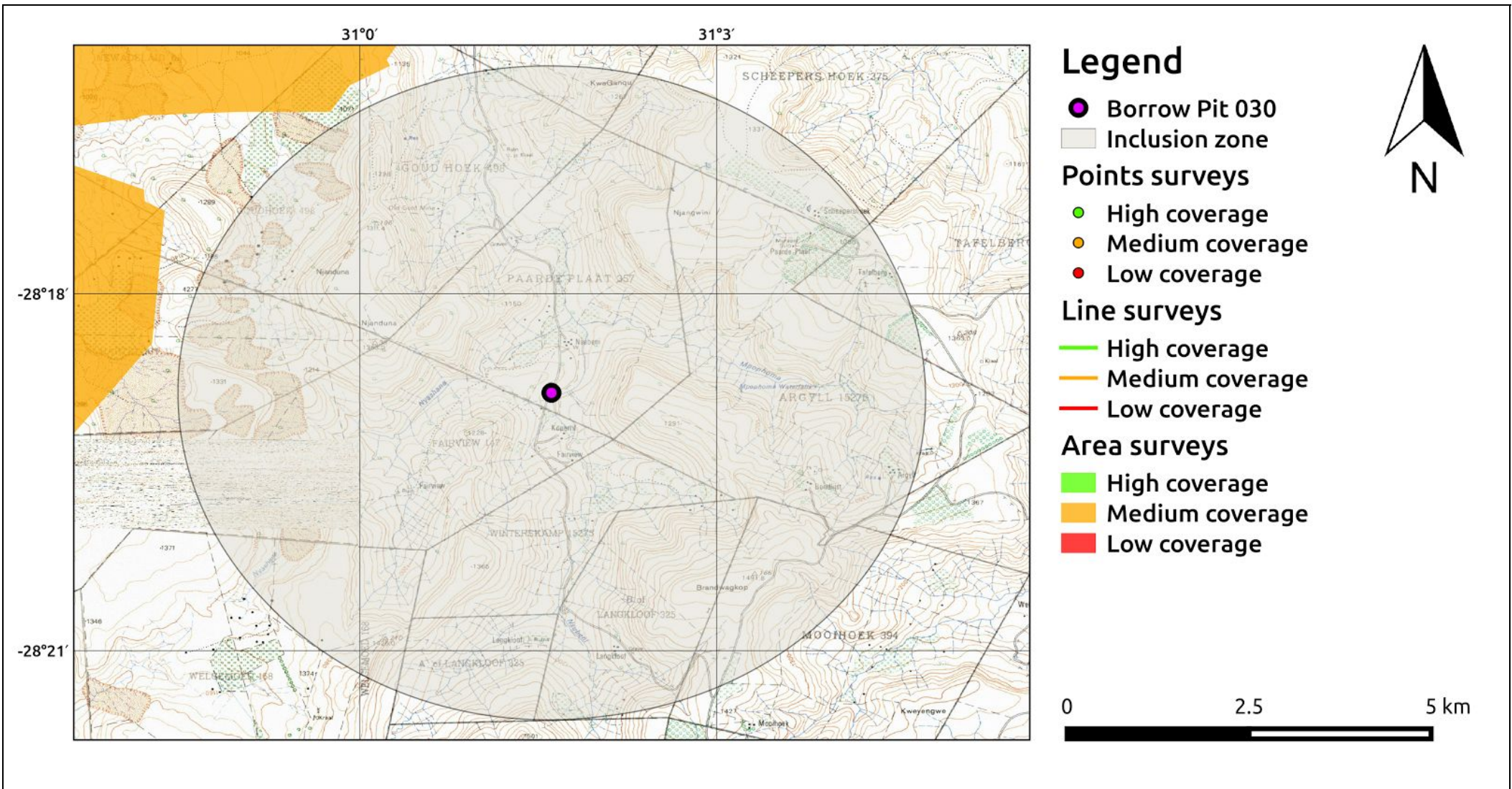


## 7. Mapping



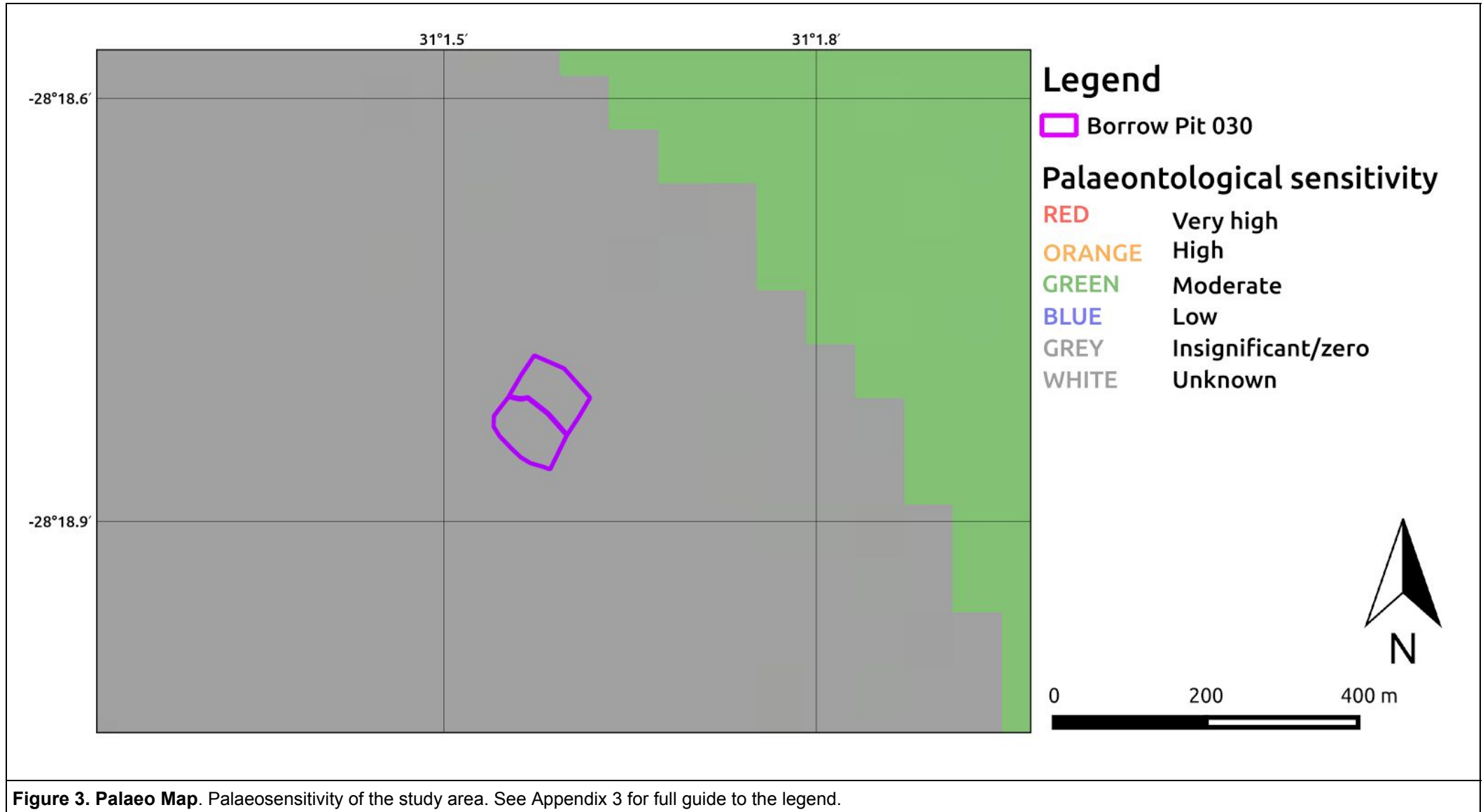
**Figure 1b. Overview Map.** Satellite image with proposed development indicated.







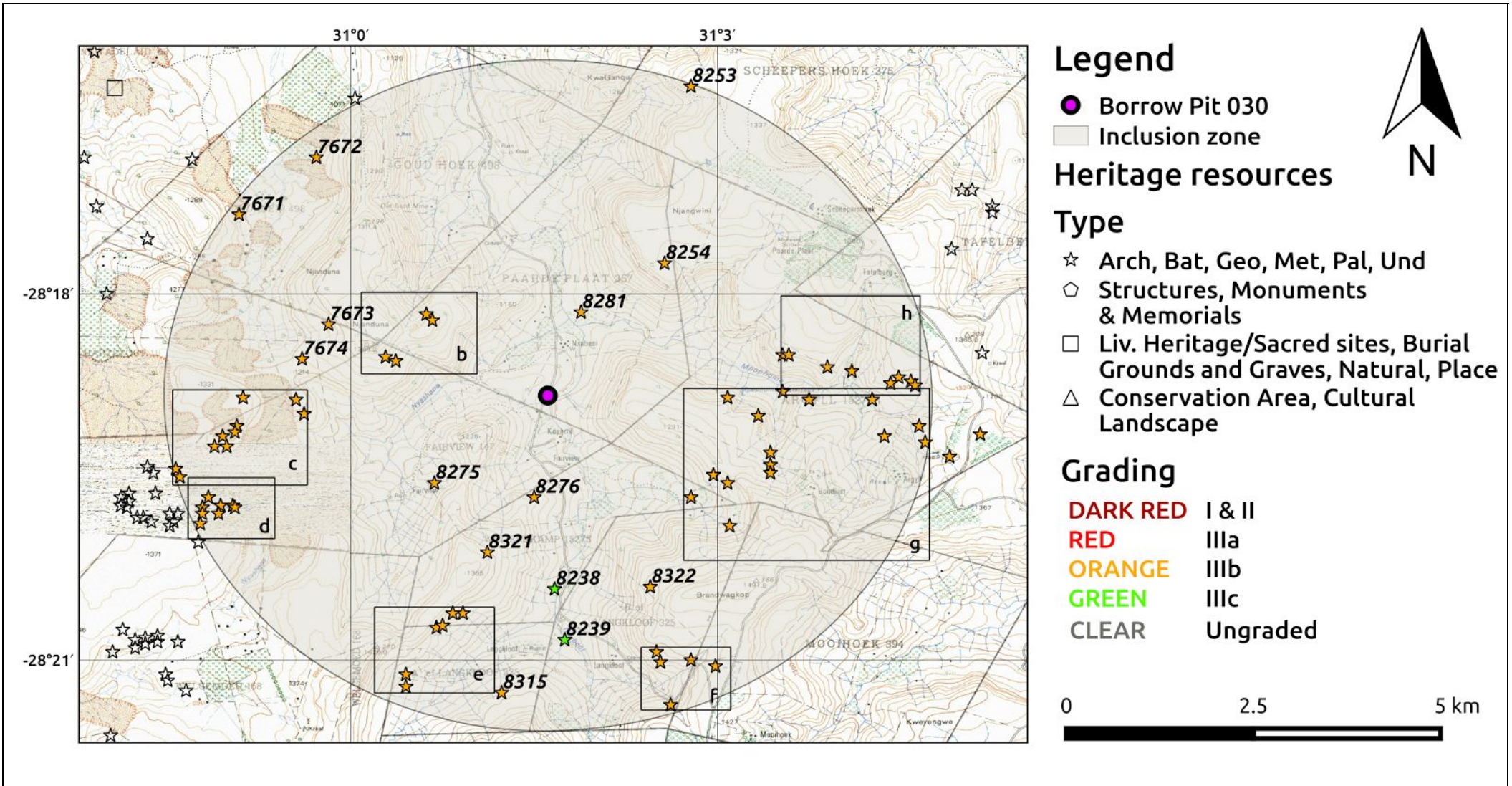
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**Figure 4a. Heritage Resources Map.** Heritage resources previously identified in and near the study area, with SAHRIS Site IDs indicated (see Figures 4b-h for insets).



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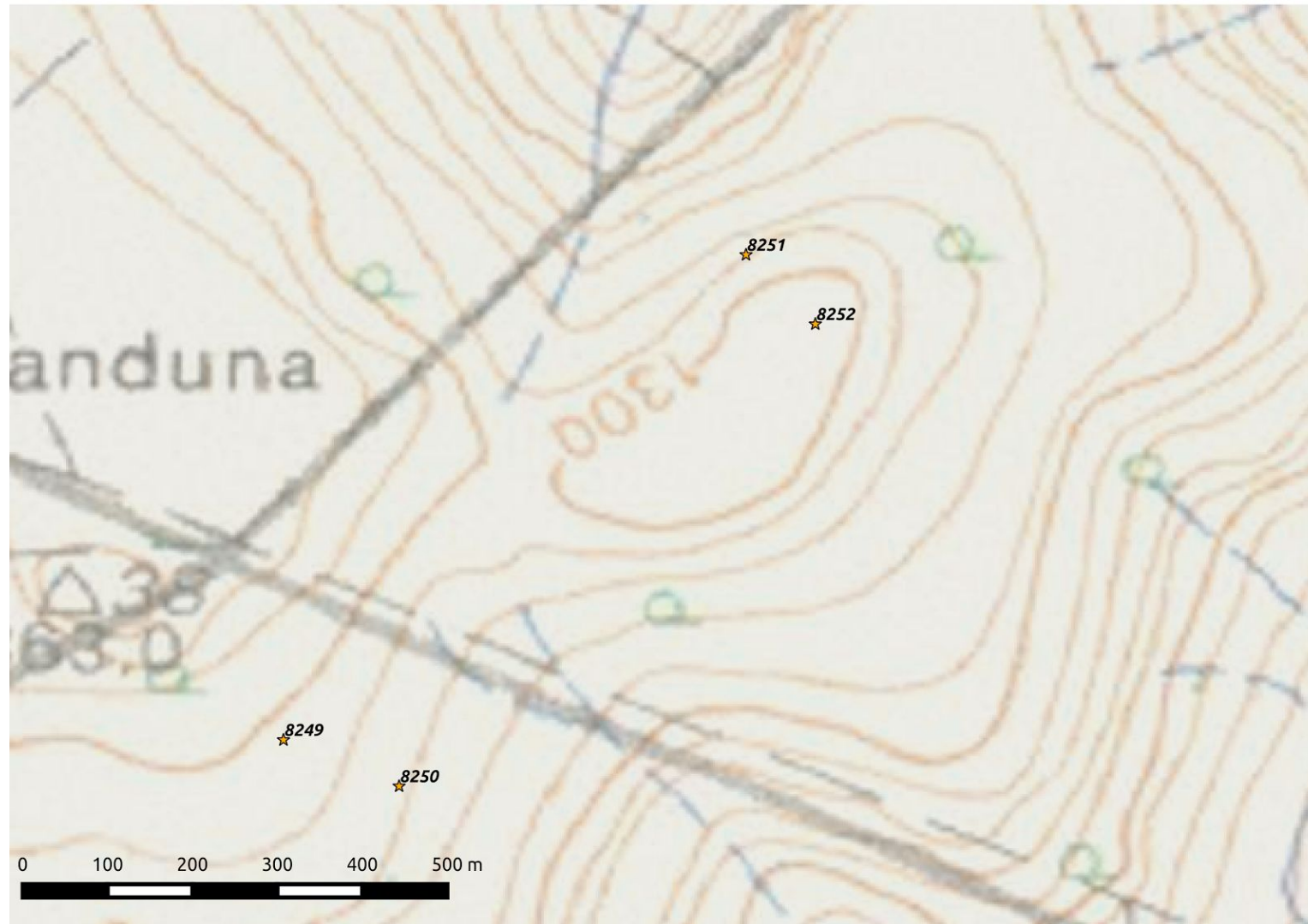


Figure 4b. Inset map.





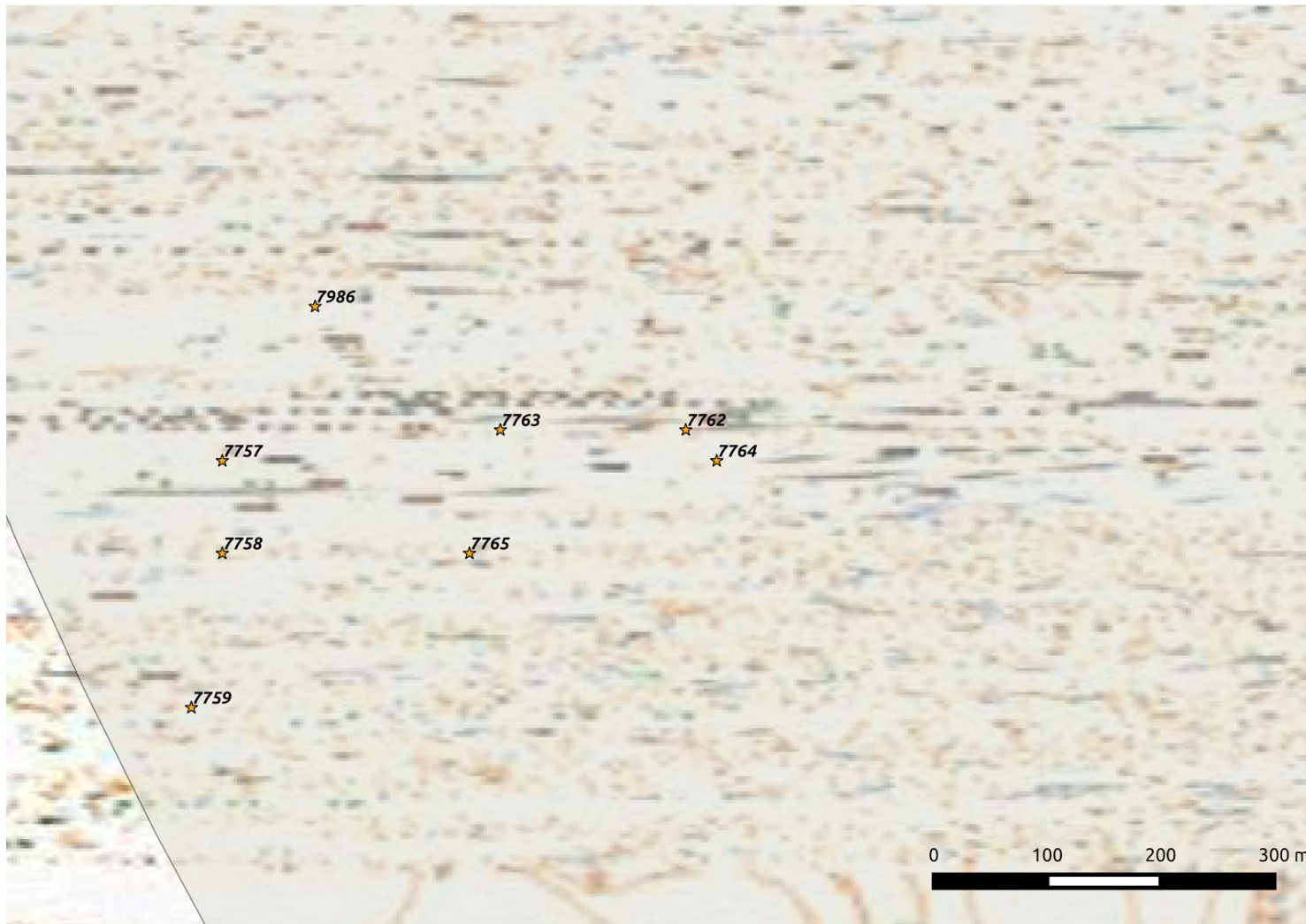
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**Figure 4c. Inset map** (topo map distorted).



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**Figure 4d. Inset map** (topo map distorted).





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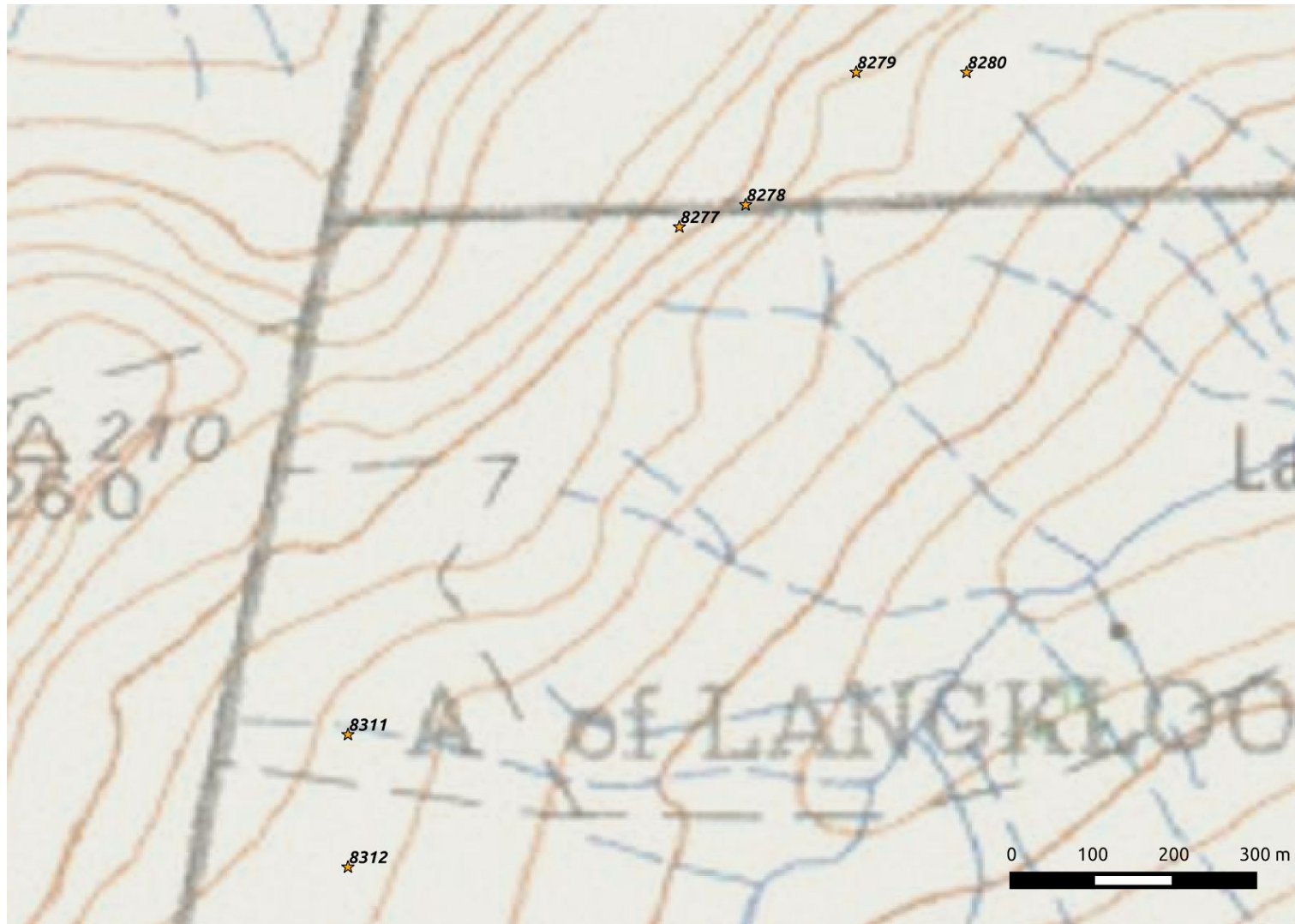


Figure 4e. Inset map.





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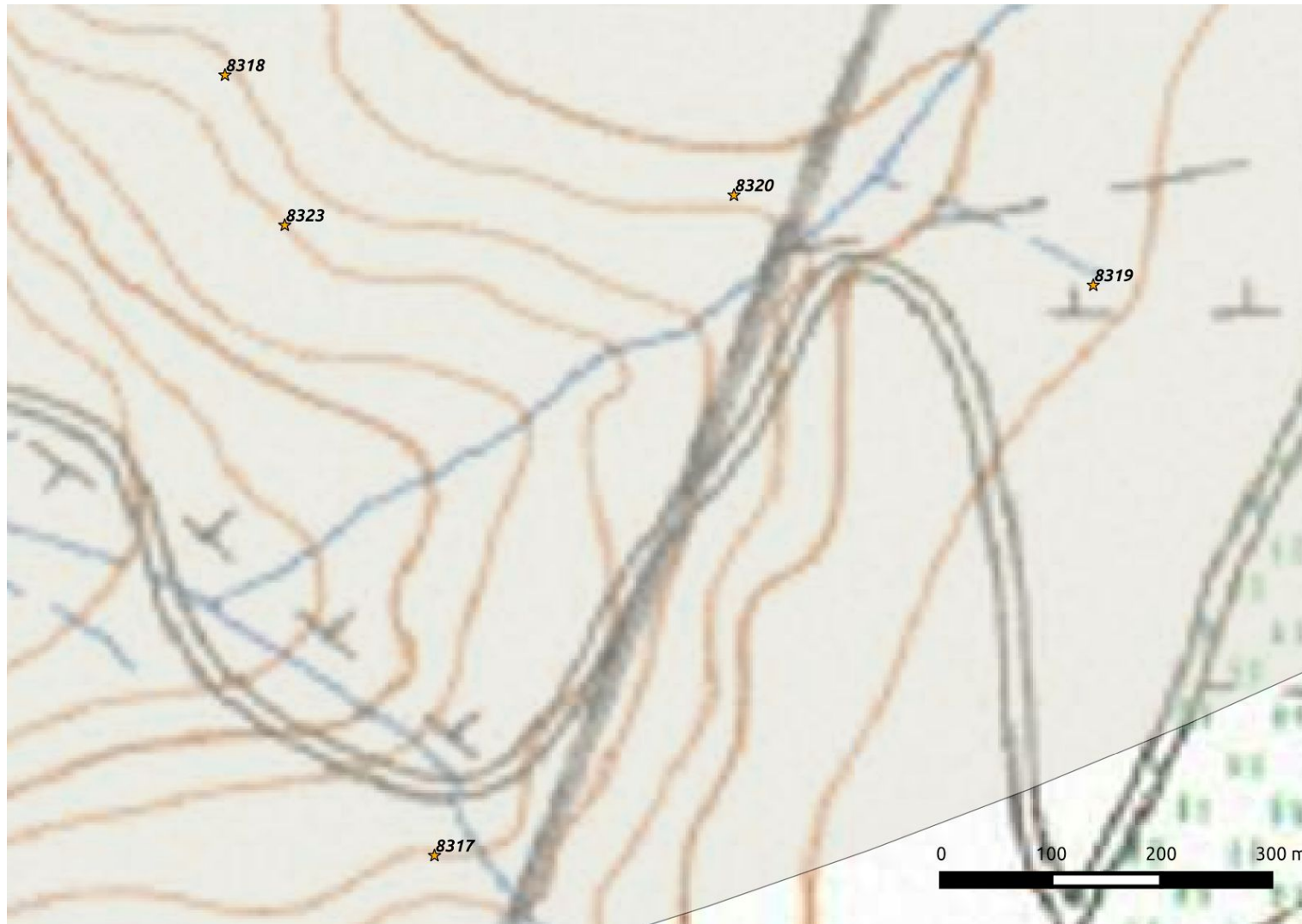


Figure 4f. Inset map.



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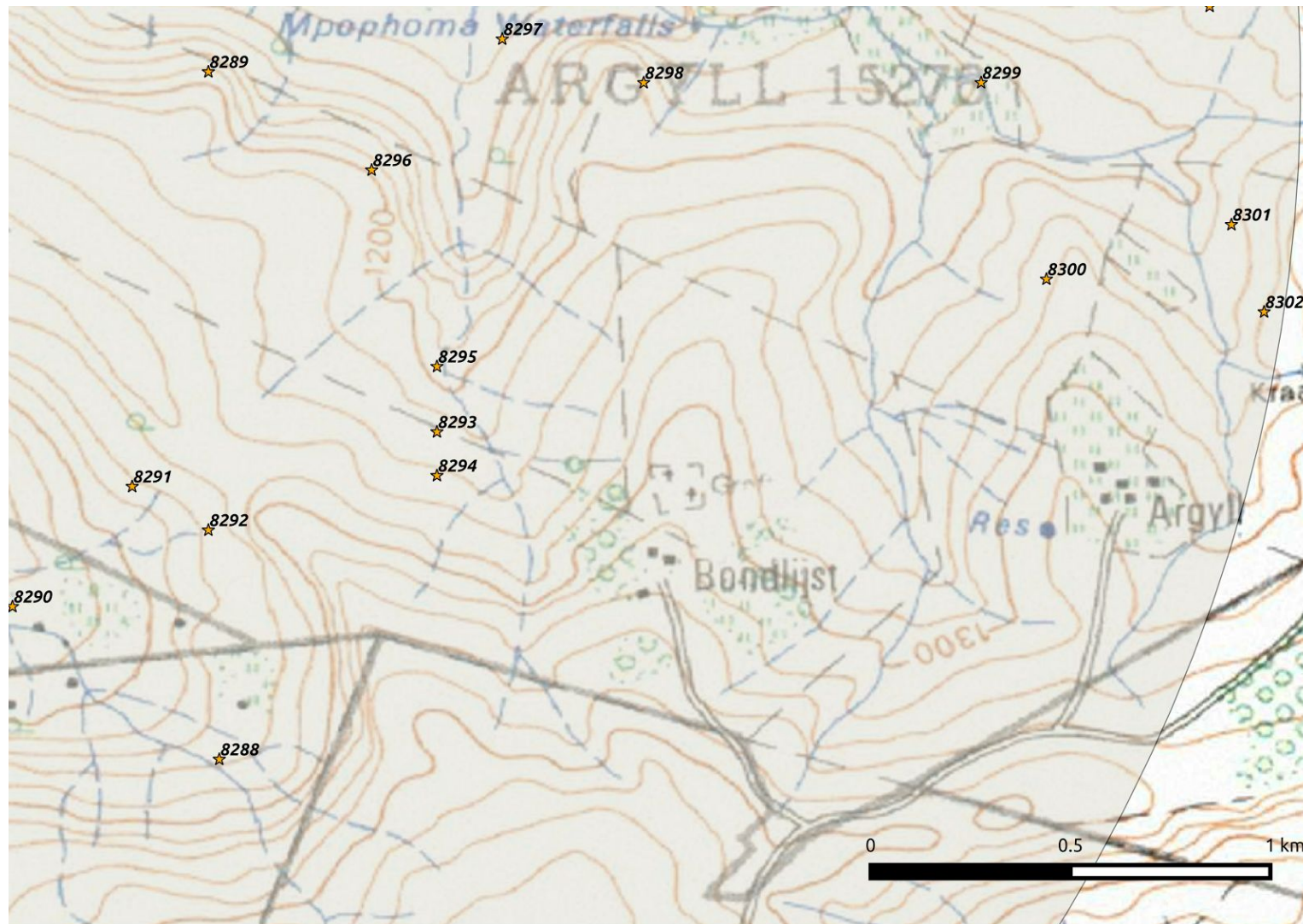


Figure 4g. Inset map.





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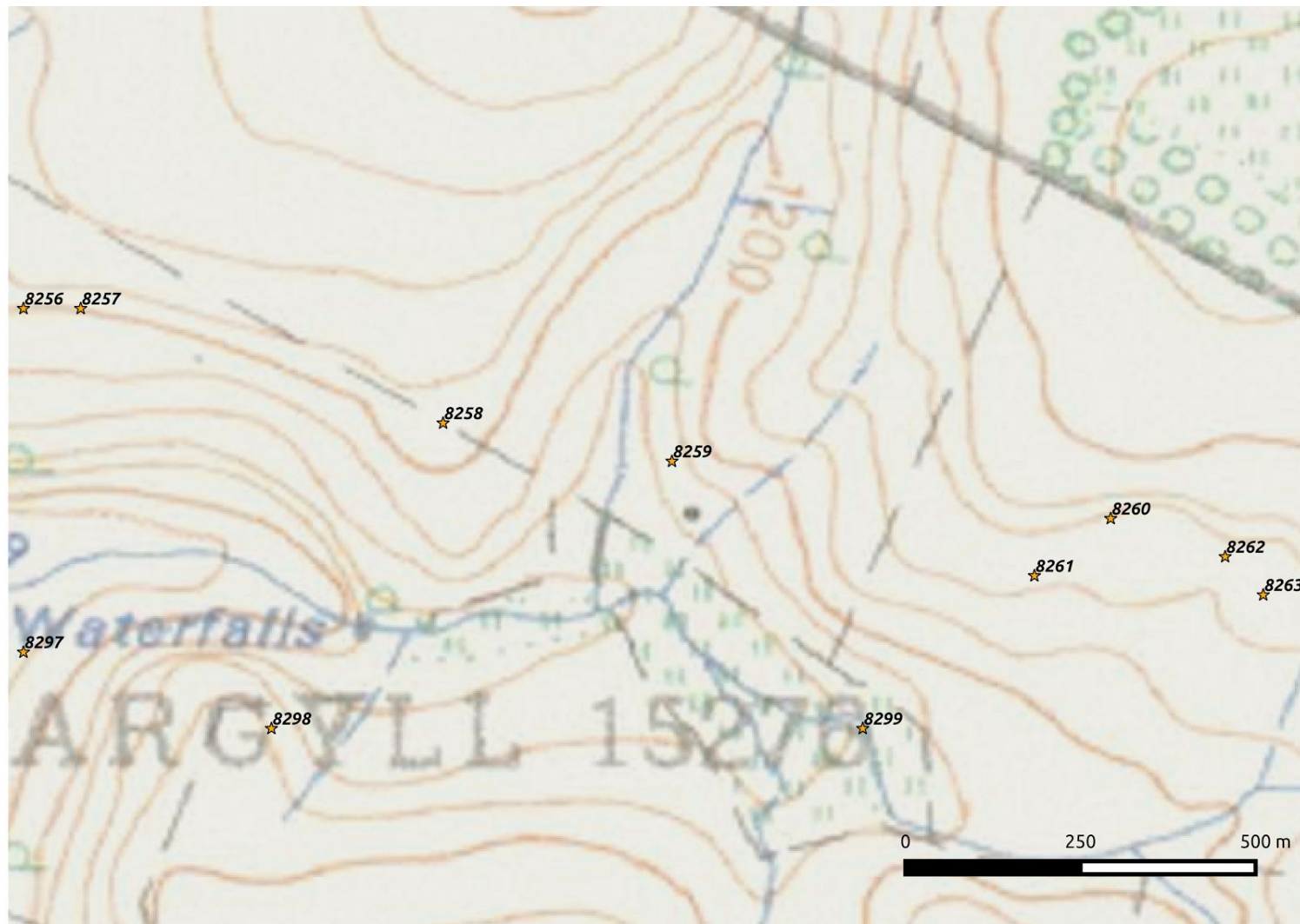


Figure 4h. Inset map.





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## 8. Heritage statement and character of the area

This Heritage Screener is part of a set of 17 screeners for the expansion and formalisation of various borrow pits in the Ulundi and Nongoma municipalities in KwaZulu-Natal. We have therefore evaluated the 17 applications to justify where additional specialist studies are appropriate in light of Section 38 (3)(d): *“an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development”*.

CTS set an inclusion zone of 5km around the proposed borrow pit to characterise the types of heritage resources which may be identified in the area of the proposed development. No Heritage Impact Assessment has yet been recorded in the 5km inclusion zone, but a number of sites have been recorded by the KwaZulu-Natal Museum. Most sites identified within the inclusion zone (68 out of 70) are Iron Age stone settlements which may also be found in the area of the proposed borrow pit. Although this is an existing borrow pit, only 0.1ha of its extent has been used for mining activities and most of the proposed borrow pit will occur on relatively undisturbed land. It is therefore recommended that **an Archaeological Impact Assessment be undertaken on the area of the existing and proposed expansion of the borrow pit**. No structures are expected to be identified on site.

Borrow Pit 30 is underlain by Karoo dolerite of insignificant fossil sensitivity, therefore, **no Palaeontological Impact Assessment is recommended**.



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## APPENDIX 1 - Site List

Site ID	Site no	Full Site Name	Site Type	Grading
8317	2831AC 080	--	Ruin > 100 years	Grade IIIb
8318	2831AC 081	--	Ruin > 100 years	Grade IIIb
8319	2831AC 082	--	Ruin > 100 years	Grade IIIb
8280	2831AC 043	--	Ruin > 100 years	Grade IIIb
8281	2831AC 044	--	Ruin > 100 years	Grade IIIb
8288	2831AC 051	--	Ruin > 100 years	Grade IIIb
8289	2831AC 052	--	Ruin > 100 years	Grade IIIb
8290	2831AC 053	--	Ruin > 100 years	Grade IIIb
8291	2831AC 054	--	Ruin > 100 years	Grade IIIb
8292	2831AC 055	--	Ruin > 100 years	Grade IIIb
8293	2831AC 056	--	Ruin > 100 years	Grade IIIb
8294	2831AC 057	--	Ruin > 100 years	Grade IIIb
8295	2831AC 058	--	Ruin > 100 years	Grade IIIb
8296	2831AC 059	--	Ruin > 100 years	Grade IIIb
8300	2831AC 063	--	Ruin > 100 years	Grade IIIb
8301	2831AC 064	--	Ruin > 100 years	Grade IIIb
8302	2831AC 065	--	Ruin > 100 years	Grade IIIb
8320	2831AC 083	--	Ruin > 100 years	Grade IIIb
7671	2830BD 166	Goud Hoek	Ruin > 100 years	Grade IIIb
7672	2830BD 167	Goud Hoek	Ruin > 100 years	Grade IIIb
7673	2830BD 168	Hartstogt	Ruin > 100 years	Grade IIIb
7674	2830BD 169	Hartstogt	Ruin > 100 years	Grade IIIb
7757	2830BD 254	--	Ruin > 100 years	Grade IIIb
7758	2830BD 255	--	Ruin > 100 years	Grade IIIb



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7759	2830BD 256	--	Ruin > 100 years	Grade IIIb
7762	2830BD 259	--	Ruin > 100 years	Grade IIIb
7763	2830BD 260	--	Ruin > 100 years	Grade IIIb
7764	2830BD 261	--	Ruin > 100 years	Grade IIIb
7765	2830BD 262	--	Ruin > 100 years	Grade IIIb
7766	2830BD 263	--	Ruin > 100 years	Grade IIIb
7767	2830BD 264	--	Ruin > 100 years	Grade IIIb
7768	2830BD 265	--	Ruin > 100 years	Grade IIIb
7769	2830BD 266	--	Ruin > 100 years	Grade IIIb
7770	2830BD 267	--	Ruin > 100 years	Grade IIIb
7771	2830BD 268	--	Ruin > 100 years	Grade IIIb
7772	2830BD 269	--	Ruin > 100 years	Grade IIIb
7781	2830BD 278	--	Ruin > 100 years	Grade IIIb
7782	2830BD 279	--	Ruin > 100 years	Grade IIIb
7783	2830BD 280	--	Ruin > 100 years	Grade IIIb
7986	2830BD 483	--	Ruin > 100 years	Grade IIIb
8249	2831AC 012	--	Ruin > 100 years	Grade IIIb
8250	2831AC 013	--	Ruin > 100 years	Grade IIIb
8251	2831AC 014	--	Ruin > 100 years	Grade IIIb
8252	2831AC 015	--	Ruin > 100 years	Grade IIIb
8253	2831AC 016	--	Ruin > 100 years	Grade IIIb
8254	2831AC 017	--	Ruin > 100 years	Grade IIIb
8256	2831AC 019	--	Ruin > 100 years	Grade IIIb
8257	2831AC 020	--	Ruin > 100 years	Grade IIIb
8258	2831AC 021	--	Ruin > 100 years	Grade IIIb
8259	2831AC 022	--	Ruin > 100 years	Grade IIIb





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8260	2831AC 023	--	Ruin > 100 years	Grade IIIb
8261	2831AC 024	--	Ruin > 100 years	Grade IIIb
8262	2831AC 025	--	Ruin > 100 years	Grade IIIb
8263	2831AC 026	--	Ruin > 100 years	Grade IIIb
8275	2831AC 038	--	Ruin > 100 years	Grade IIIb
8276	2831AC 039	--	Ruin > 100 years	Grade IIIb
8277	2831AC 040	--	Ruin > 100 years	Grade IIIb
8278	2831AC 041	--	Ruin > 100 years	Grade IIIb
8279	2831AC 042	--	Ruin > 100 years	Grade IIIb
8297	2831AC 060	--	Ruin > 100 years	Grade IIIb
8298	2831AC 061	--	Ruin > 100 years	Grade IIIb
8299	2831AC 062	--	Ruin > 100 years	Grade IIIb
8311	2831AC 074	--	Ruin > 100 years	Grade IIIb
8312	2831AC 075	--	Ruin > 100 years	Grade IIIb
8315	2831AC 078	--	Ruin > 100 years	Grade IIIb
8321	2831AC 084	--	Ruin > 100 years	Grade IIIb
8322	2831AC 085	--	Ruin > 100 years	Grade IIIb
8323	2831AC 086	--	Ruin > 100 years	Grade IIIb
8238	2831AC 001	--	Artefacts	Grade IIIc
8239	2831AC 002	--	Artefacts	Grade IIIc

## APPENDIX 2 - Reference List



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Nid	Author/s	Date	Report Type	Title
NA	NA	NA	NA	NA



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## APPENDIX 3 - Keys/Guides

### Key/Guide to Acronyms

<b>AIA</b>	Archaeological Impact Assessment
<b>DARD</b>	Department of Agriculture and Rural Development (KwaZulu-Natal)
<b>DEA</b>	Department of Environmental Affairs
<b>DEADP</b>	Department of Environmental Affairs and Development Planning (Western Cape)
<b>DEDEAT</b>	Department of Economic Development, Environmental Affairs and Tourism (Eastern Cape)
<b>DEDECT</b>	Department of Economic Development, Environment, Conservation and Tourism (North West)
<b>DEDT</b>	Department of Economic Development and Tourism (Mpumalanga)
<b>DEDTEA</b>	Department of Economic Development, Tourism and Environmental Affairs (Free State)
<b>DENC</b>	Department of Environment and Nature Conservation (Northern Cape)
<b>DMR</b>	Department of Mineral Resources
<b>GDARD</b>	Gauteng Department of Agriculture and Rural Development (Gauteng)
<b>HIA</b>	Heritage Impact Assessment
<b>LEDET</b>	Department of Economic Development, Environment and Tourism (Limpopo)
<b>MPRDA</b>	Mineral and Petroleum Resources Development Act, no 28 of 2002
<b>NEMA</b>	National Environmental Management Act, no 107 of 1998
<b>NHRA</b>	National Heritage Resources Act, no 25 of 1999
<b>PIA</b>	Palaeontological Impact Assessment
<b>SAHRA</b>	South African Heritage Resources Agency
<b>SAHRIS</b>	South African Heritage Resources Information System
<b>VIA</b>	Visual Impact Assessment

### Full guide to Palaeosensitivity Map legend

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



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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.**