

**DESKTOP STUDY FOR THE BLAAUWBOSCH BWSS,
OSIZWENI, NEWCASTLE, KZN**

FOR HANSLAB

DATE: 5 APRIL 2020

By Gavin Anderson

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Management**

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Abbreviations

HP	Historical Period
IIA	Indeterminate Iron Age
LIA	Late Iron Age
EIA	Early Iron Age
ISA	Indeterminate Stone Age
ESA	Early Stone Age
MSA	Middle Stone Age
LSA	Late Stone Age
HIA	Heritage Impact Assessment
PIA	Palaeontological Impact Assessment

This specific project forms part of a larger initiative being undertaken by the Newcastle Local Municipality, the Blaauwbosch bulk transportation of water has been identified as a Key Capital Project with a spatial dimensional/ implication, that is currently planned or underway. The Applicant (Newcastle Local Municipality) proposes to install a new 450mm steel pipe within an existing servitude for the bulk transportation of water from the existing Brakfontain Reservoir to the Blaauwbosch supply area (MBO). The proposed pipeline is approximately 10.3km in length. The purpose of the overall project is to address current water supply constraints experienced within the Newcastle areas and reduce the approximately 67% water losses being experienced in the supply system.

The proposed pipeline route extends from the Braakfontein Reservoir and goes in a north-easterly direction towards the regional cemetery, where the line will bend northwards, crossing the Madadeni Main Road (which connects Newcastle and Utrecht), up to the defunct railway line where it bends in an easterly direction, following the railway line and then the Madadeni Road. The proposed pipeline will follow the existing servitude through a moderately populated rural area characterized by open veld and cultivated gardens with scattered shrubs and generally small trees

Umlando undertook a desktop study for the project as the sensitive areas were surveyed in 2019.

FIG. 1 GENERAL LOCATION OF THE STUDY AREA

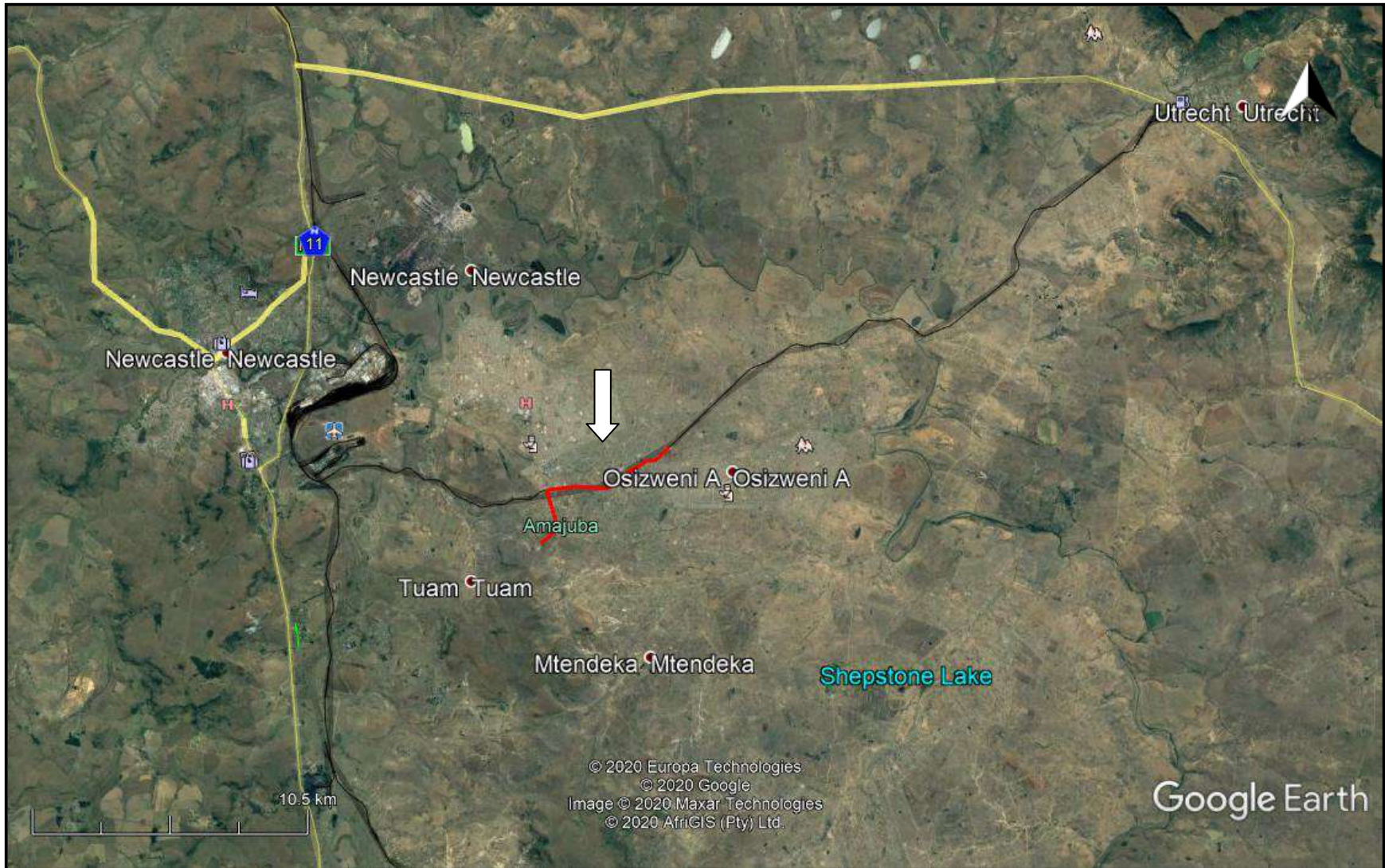


FIG. 2: AERIAL OVERVIEW OF THE STUDY AREA

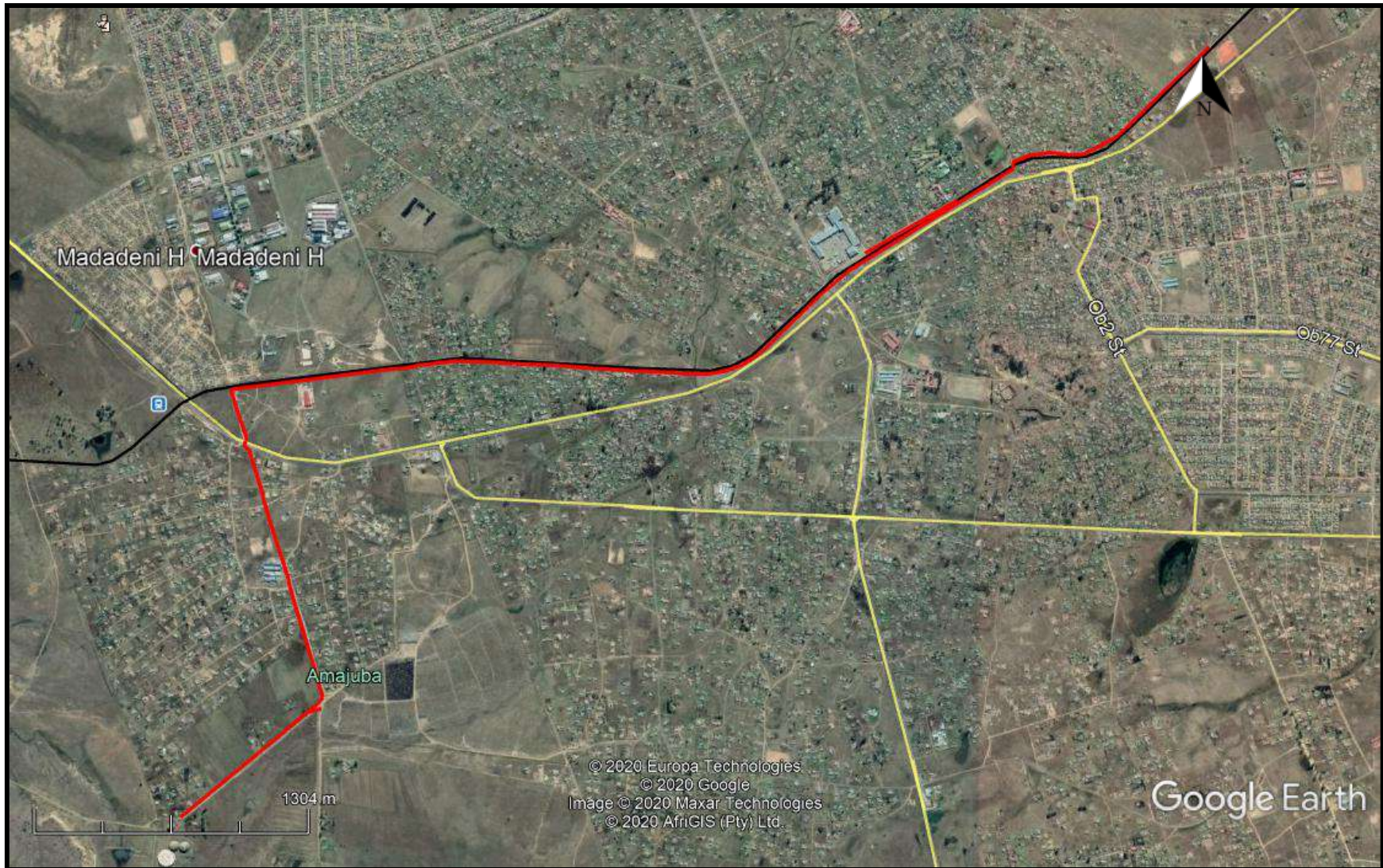
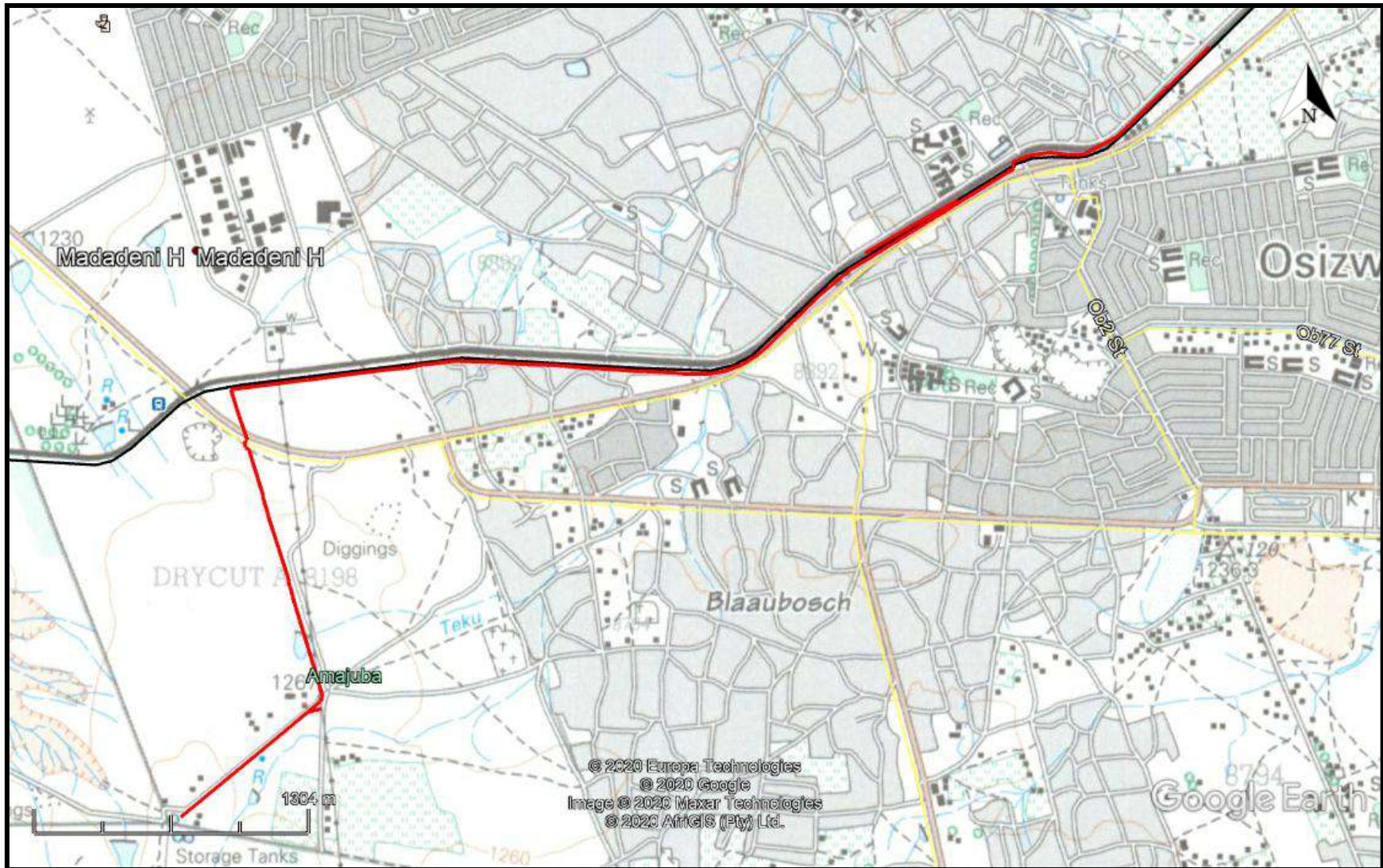


FIG. 3: TOPOGRAPHICAL OVERVIEW OF THE EASTERN STUDY AREA



The desktop study consisted of analysing various maps for evidence of prior habitation in the study area, as well as for previous archaeological surveys. The archaeological database indicates that there are archaeological sites in the general area (fig. 4). These sites include all types of Stone Age and Iron Age sites. No sites occur in the study area footprint, although one site occurs within 65m of the pipeline central point. Anderson (2019) undertook a survey on the Erf Drycut. This area forms part of the western side of the pipeline and is the least disturbed area. Anderson recorded a single settlement with a human grave (DCUT01) 65m west from the line centre point (fig. 5). The central point for the structures is at S27.792342°, E30.060642°.

No national monuments, battlefields, or historical cemeteries are known to occur in the study area

The Surveyor General Diagram indicates that the farm was allotted in 1912. No buildings are shown on the diagram (fig. 6).

The 1937 aerial photographs for the entire route were not available due to the COVID-19 non-essential work shutdown.

The 1944 topographical map indicates that there are several settlements alongside the pipeline route (fig. 7). However, Anderson's (2019) survey indicated that only one of these occur at Drycut. The eastern half of the pipeline has been developed and the old settlements have been built over with new buildings. A buffer will need to be placed around DCUT01 before construction begins. The buffer needs to be clearly visible and at least 5m from the edge of the stone structures.

The palaeontology of the area is very high sensitive (fig. 8). However, Dr. A Smith states that the area is highly disturbed and provided that the excavations do not exceed 1.5m in depth, it should be exempt from further PIA mitigation (see Appendix A).

FIG. 4: LOCATION OF KNOWN HERITAGE SITES NEAR THE STUDY AREA

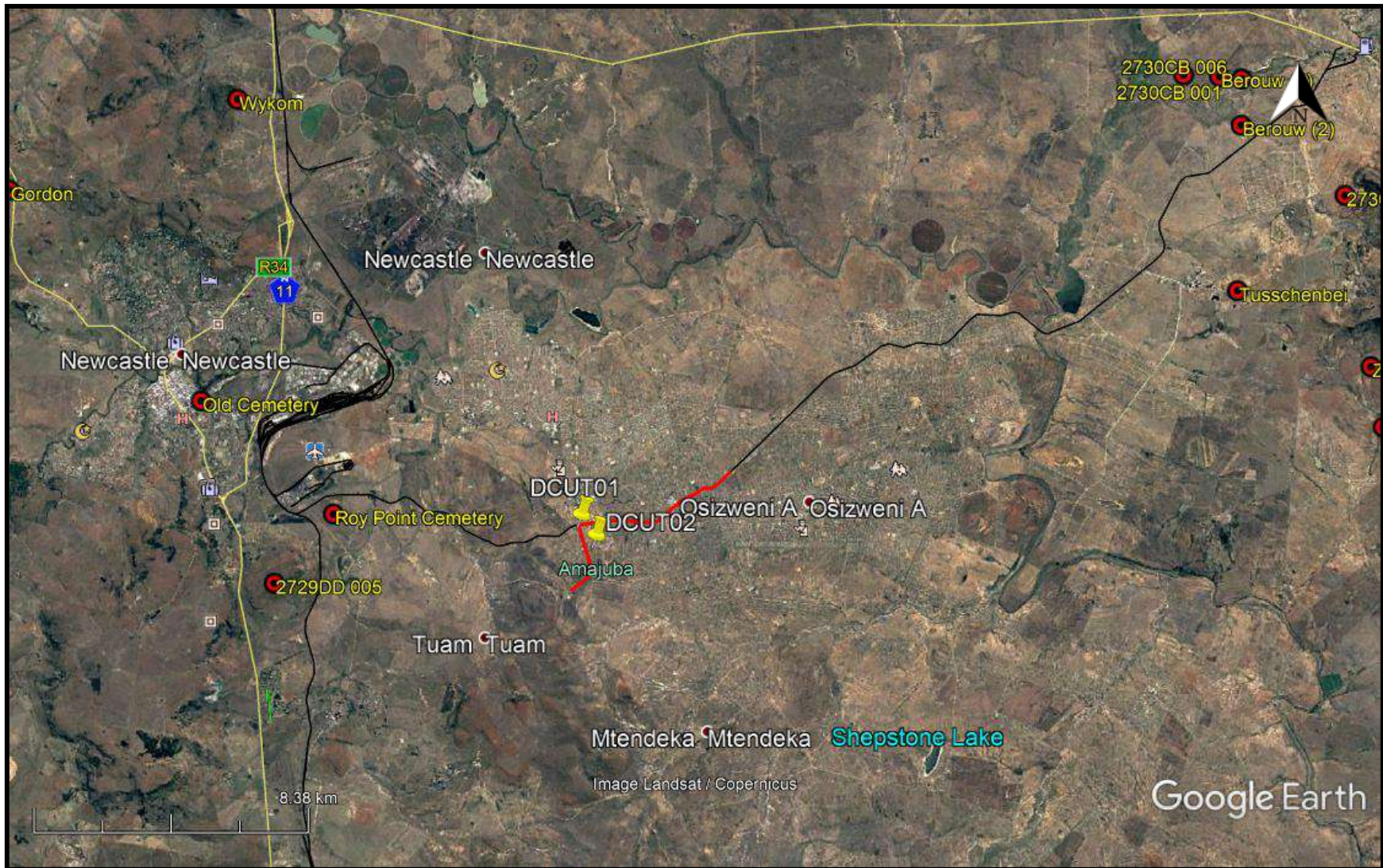


FIG 5: HOUSE FLOOR AND GRAVE AT DCUT01



FIG. 6: SURVEYOR GENERAL MAP OF DRYCUT HT (1912)

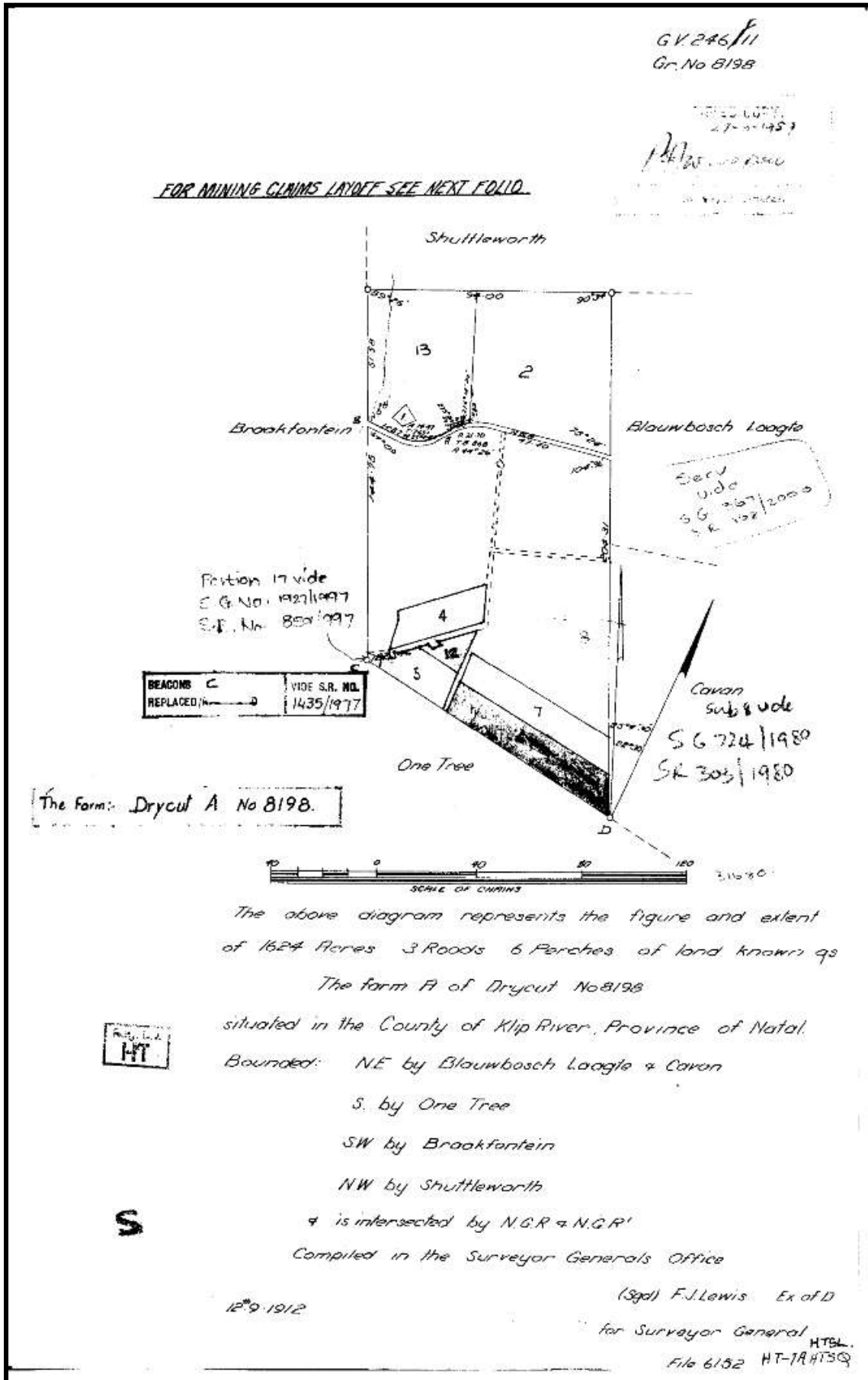


FIG. 7: STUDY AREA IN 1944

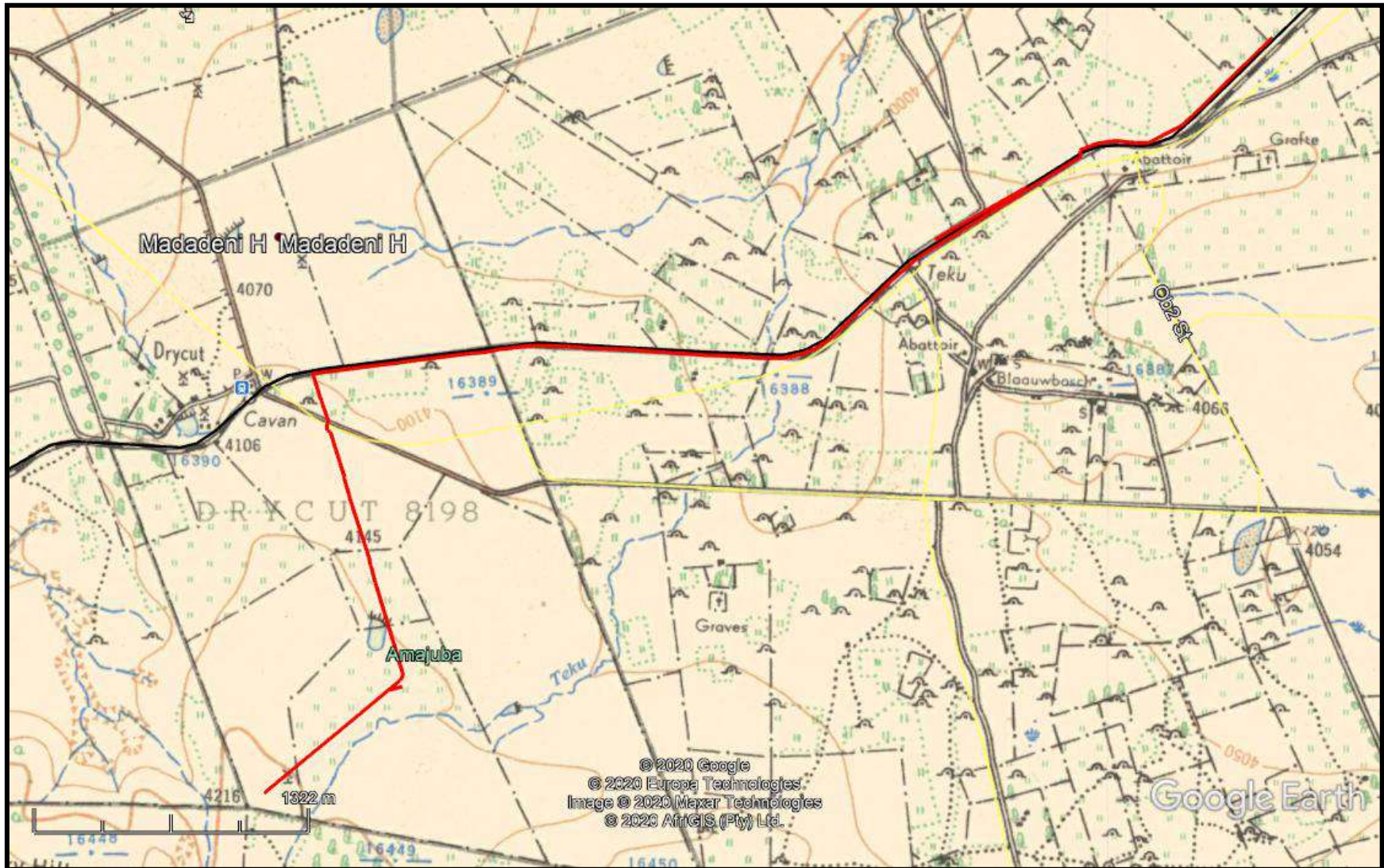
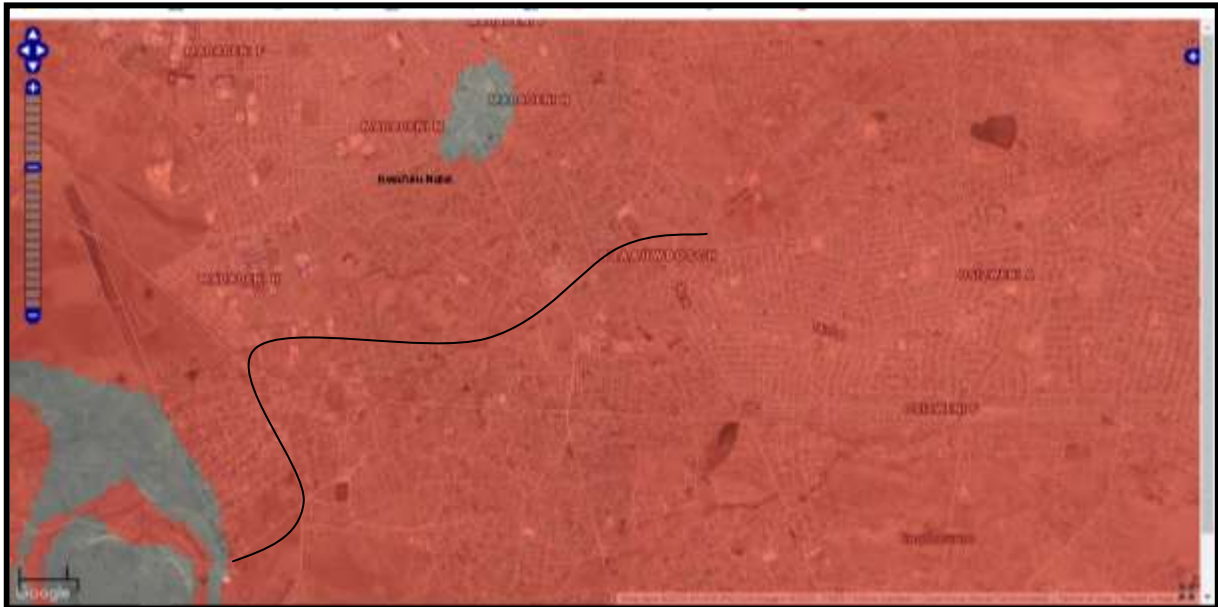


FIG. 8: PALAEOLOGICAL SENSITIVITY



COLOUR	SENSITIVITY	REQUIRED ACTION
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	LOW	no palaeontological studies are required however a protocol for finds is required
GREY	INSIGNIFICANT/ZERO	no palaeontological studies are required
WHITE/CLEAR	UNKNOWN	these areas will require a minimum of a desktop study. As more information comes to light, SAHRA will continue to populate the map.

CONCLUSION

The desktop study shows that there are no heritage sites within 50m each side of the proposed water pipeline. A pre-1937 settlement with a grave occurs 65m from the pipeline central point and this will need to be demarcated before construction begins. The rest of the line is in an area of previous development and will not have heritage sites.

The palaeontology is highly sensitive but provided the excavations do not extend for more than 1.5m below the surface, no further PIA mitigation is required.

No further heritage mitigation is required.

REFERENCES

2930CC Osizwini 1944, 1996
GV246/11

Anderson, G. 2019. Heritage Impact Assessment For The Drycut Housing Project, Madadeni Amajuba District. For Bizycon (Pty) Ltd

EXPERIENCE OF THE HERITAGE CONSULTANT

Gavin Anderson has a M. Phil (in archaeology and social psychology) degree from the University of Cape Town. Gavin has been working as a professional archaeologist and heritage impact assessor since 1995. He joined the Association of Professional Archaeologists of Southern Africa in 1998 when it was formed. Gavin is rated as a Principle Investigator with expertise status in Rock Art, Stone Age and Iron Age studies. In addition to this, he was worked on both West and East Coast shell middens, Anglo-Boer War sites, and Historical Period sites.

DECLARATION OF INDEPENDENCE

I, Gavin Anderson, declare that I am an independent specialist consultant and have no financial, personal or other interest in the proposed development, nor the developers or any of their subsidiaries, apart from fair remuneration for work performed in the delivery of heritage assessment services. There are no circumstances that compromise the objectivity of my performing such work.



Gavin Anderson
Archaeologist/Heritage Impact Assessor

APPENDIX A
PIA LETTER OF EXEMPTION

Dr Alan Smith

**Alan Smith Consulting
29 Browns Grove
Sherwood
Durban
4091**

Re: LETTER OF EXEMPTION: BLAAUWBOCSH BULK WATER PIPELINE

**Umlando Archaeological Surveys & Heritage
Management
PO Box 102532,
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KwaZulu-Natal 3901**

6-April 2020

Dear Sir

Umlando Archaeological Surveys & Heritage Management is conducting a Heritage/
Palaeontological Impact Assessment on a section of the Blaauwbosch Bulk Water
Pipeline Project, Newcastle.

Although this structure extends for 6km it follows pre-existing access routes. Excavation
will be shallower than 1.5m. The proposed pipeline route is underlain by Volksrust
Formation shale, which can contain Palaeontological Material, however this area will
already have been highly disturbed during development and construction of the pre-
existing access route infrastructure. Consequently no Palaeontological Material will be
impacted during construction of the Blaauwbosch Pipeline.

As the footing material is already highly impacted, there is no reason to conduct a PIA,
thus an exemption is requested for this project.

Should the Blaauwbosch Pipeline route change then the project will need to be reassessed
in terms of a PIA

**Dr Alan Smith.
Alan Smith Consulting**

