

**AN ARCHAEOLOGICAL ASSESSMENT OF TWO BORROW PITS
ALONGSIDE DR3321 UAP
NORTHERN CAPE PROVINCE**

Prepared for

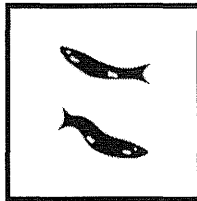
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Executive summary

A Phase 1 Archaeological Impact Assessment of two proposed borrow pits alongside DR3321, from the N14 to Uap in Upington in the Northern Cape has identified no significant impacts to pre-colonial archaeological material that will need to be mitigated prior to proposed development activities.

1. INTRODUCTION

1.1 Background and brief

Van Zyl Environmental Consultants, on behalf of the Provincial Government of the Northern Cape: Department of Transport and Public Works, requested the Agency for Cultural Resource Management to undertake an archaeological impact assessment of two proposed borrow pits situated alongside DR3321, from the intersection of the National Road 14 (N14) to Uap near Upington in the Northern Cape Province.

The proposed borrow pits have been identified as possible material sources for the proposed upgrading and surfacing of the 9.64 km road.

The extent of each borrow pit is about 1.5 ha

The aim of the study is to locate, identify and map archaeological heritage remains that may be negatively impacted by the planning and implementation of the proposed project, and to propose measures to mitigate against the impact.

It is important to note that the proposed upgrading of DR3321 is to stay within the existing road formation.

2. TERMS OF REFERENCE

The terms of reference for the archaeological study were:

- to determine whether there are likely to be any archaeological sites of significance within the proposed borrow pits
- to identify and map any sites of archaeological significance within the proposed borrow pits;
- to assess the sensitivity and conservation significance of archaeological sites within the proposed borrow pits;
- to assess the status and significance of any impacts resulting from the proposed development, and
- to identify mitigatory measures to protect and maintain any valuable archaeological sites that may exist within the proposed borrow pits.

3. THE STUDY SITE

A locality map is illustrated in Figure 1.

An aerial photograph of the study area indicating the proposed borrow pits is illustrated in Figure 2.

Uap is a small rural farming settlement situated approximately 10 kms outside of Uppington on the north bank of the Orange River.

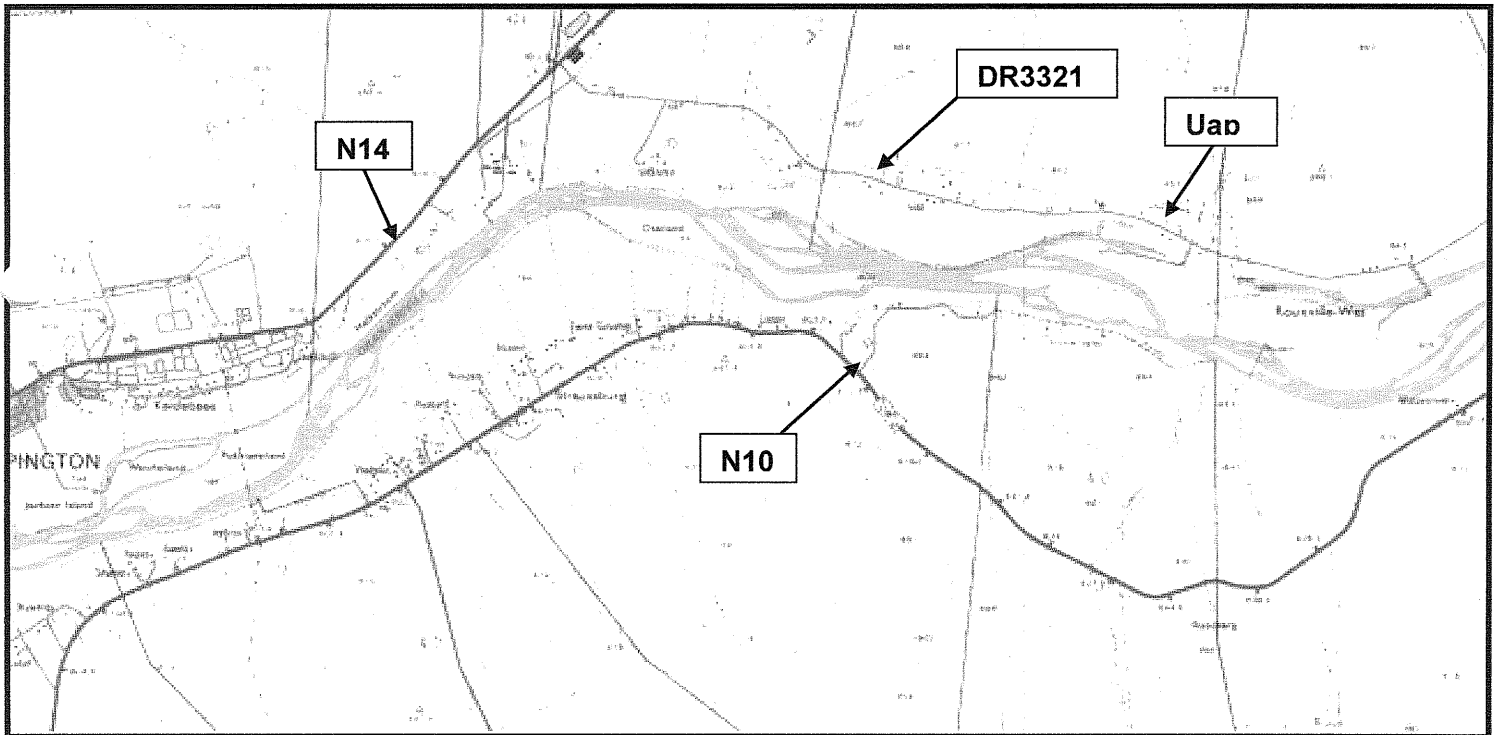


Figure 1. Locality Map (2821 AD Uppington East)

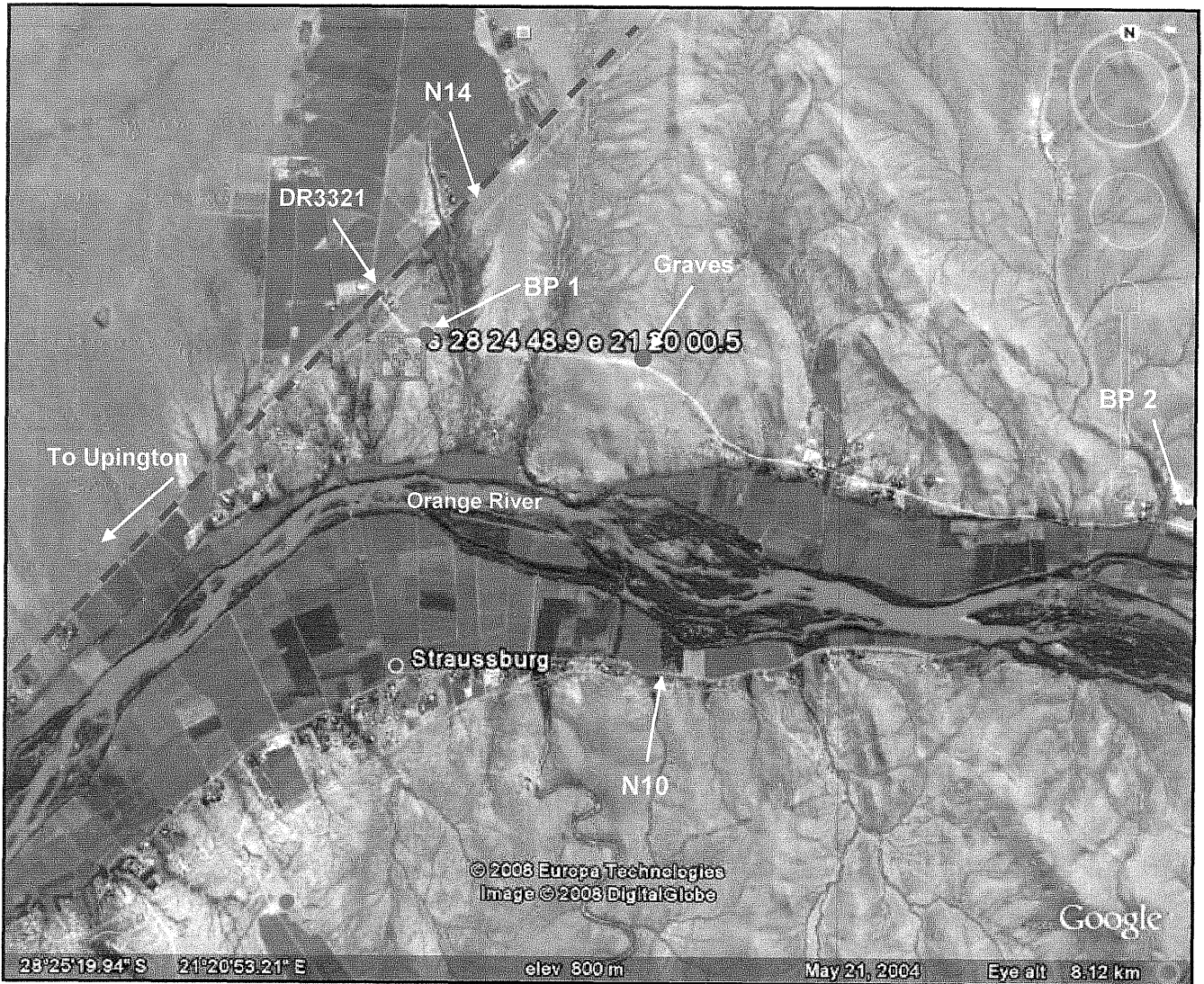


Figure 2. Aerial photograph of the proposed borrow pits

4. APPROACH TO THE STUDY

4.1 Method of survey

The approach followed in the archaeological study entailed a ground survey of each of the proposed borrow pits.

The site visit and assessment took place on the 6th of August, 2008.

4.2. Constraints and limitations

There were no constraints or limitations associated with the proposed project.

4.3 Potential risks

There are no archaeological risks associated with the proposed project.

5. LEGISLATIVE REQUIREMENTS

5.1 The National Heritage Resources Act (Act No. 25 of 1999)

The National Heritage Resources (NHR) Act requires that "...any development or other activity which will change the character of a site exceeding 5 000m², or the rezoning or change of land use of a site exceeding 10 000 m², requires an archaeological impact assessment"

The relevant sections of the Act are briefly outlined below.

5.2 Archaeology (Section 35 (4))

Section 35 (4) of the NHR stipulates that no person may, without a permit issued by HWC, destroy, damage, excavate, alter or remove from its original position, or collect, any archaeological material or object.

5.3 Burial grounds and graves (Section 36 (3))

Section 36 (3) of the NHR stipulates that no person may, without a permit issued by the South African Heritage Resources Agency (SAHRA), destroy, damage, alter, exhume or remove from its original position or otherwise disturb any grave or burial ground older than 60 years, which is situated outside a formal cemetery administered by a local authority.

6. FINDINGS

6.1 Borrow Pit 1 (S 28° 22 48.9 E 21° 20 00.5)

The proposed borrow pit is situated about 100 m from DR 3321. Unfortunately, the site has already been excavated for source material and is therefore in a completely degraded state (Figures 3-5). The surrounding land use comprises mainly natural veld.

Findings: Relatively large numbers of Later Stone Age (LSA) tools were counted in a thin (± 2 m wide) strip of land between the fenced off site and the edge of the borrow pit. These included several end and convex scrapers, one adze, a number of miscellaneous retouched pieces, utilised and unmodified flakes and several round cores (Figure 6). Most of the tools are made on rolled, fine grained chalcedony, which very likely came from the nearby Orange River, while a few retouched flakes and utilised pieces are also made on locally available dolerite, including a large, chunky convex scraper. A few tools in quartz were also noted. In addition, several larger Middle Stone Age flakes in quartzite and indurated shale were also found.

Since the receiving environment has already been largely destroyed, the archaeological remains have been rated as having low local significance.

However, relatively large numbers of similar types of tools were documented in the large open veld beyond the fence line and in the surrounding area.



Figure 3. BP 1. View of the facing south east



Figure 5. BP 1. View of the site facing north



Figure 4. BP 1. View of the site facing north east

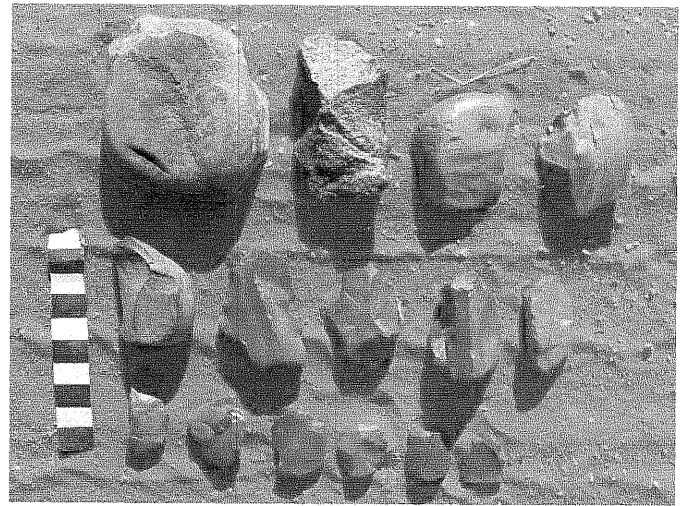


Figure 6. BP 1. Collection of Stone Age tools. Scale is in cm

6.2 Borrow Pit 2 (S 28° 25 20.9 E 21° 23 29.5)

The proposed borrow pit is situated fairly close to DR 3321, alongside an existing old borrow pit. It is very likely that this site will not even be used for road material, as most of the required volumes will come from BP 1 (Irme van Zyl pers. comm.). The proposed site slopes from south to north, abutting the old borrow pit (Figures 7-9). The slopes of the receiving environment are covered in surface stone such as quartz and quartzite with much low bush and thorny scrub and succulents occurring. No significant landscape features occur on the site. The surrounding land use comprises mainly natural veld and agricultural land.

Findings: A low density scatter of LSA utilised, retouched and unmodified chalcedony flakes were documented during the study. The tools are comparable to those that were found in BP 1. In addition, a reamer in indurated shale was also found, while a well crafted end scraper in chalcedony was found in the old borrow pit. A few pieces of green chert were also counted on the rocky and stony slopes.

The archaeological remains have been rated as having low local significance.

6.3 Other finds

Two small informal cemeteries/graveyards occur alongside (i.e. north of) DR3321, close to a local school (Figure 10 and refer to Figure 2). The graveyards are behind the fence, aligned alongside the road reserve and will not be impacted by the proposed project (Irme van Zyl pers. comm.).

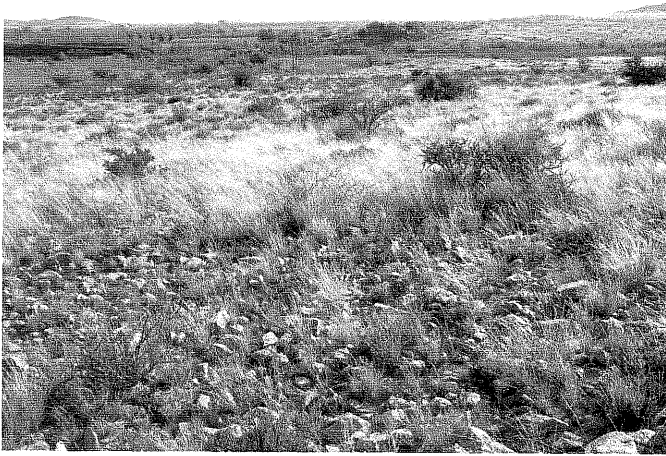


Figure 7. BP 2. View of the site facing north

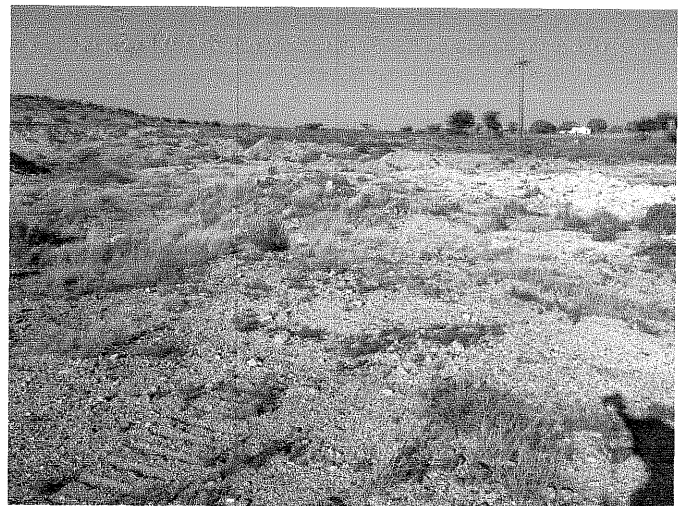


Figure 8. BP 2. View of the site facing south



Figure 8. BP 2. View of the site facing north



Figure 10. Arrow indicates graveyard

7. IMPACT STATEMENT

The impact of the proposed project on archaeological heritage remains is likely to be **low**.

The probability of locating significant archaeological heritage remains during implementation of the project is likely to be improbable.

8. CONCLUSION

The Phase 1 Archaeological Impact Assessment of two borrow pits alongside DR3321 has identified no significant impacts to pre-colonial archaeological material that will need to be mitigated prior to proposed development activities.

9. RECOMMENDATIONS

The following recommendation is made:

- Should any unmarked human remains be disturbed, exposed or uncovered during earthworks, these must immediately be reported to the South African Heritage Resources Agency (Mrs Mary Leslie or Dr A. Jerardino 021-462 4502).