

**ARCHAEOLOGICAL IMPACT ASSESSMENT
OF THE PROPOSED EXTENSION OF A BORROW PIT
ON PORTION 1, FARM NO. 643, CLANWILLIAM AREA,
WEST COAST DISTRICT MUNICIPALITY, WESTERN CAPE**

(Assessment conducted under Section 38 (8) of the National Heritage Resources Act as part
of a Heritage Impact Assessment)

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EXECUTIVE SUMMARY

Natura Viva cc was appointed by Vidamemoria Heritage Consultants on behalf of Nadeson Consulting Services to undertake an Archaeological Impact Assessment (AIA) of the proposed extension of an existing borrow pit, DR2196/22.74/L/50 (Vidamemoria pit no. 220), to the northeast of the Pakhuis Mountains in the Clanwilliam area, West Coast District Municipality. The affected area lies in agricultural land some 400 m to the west of the Brandewyn River and approximately 10 km to the south of the Doring River. Access to the quarry will be via the DR2196. Material excavated from the proposed extension will be used for the maintenance of gravel roads in the area. The pit will be rehabilitated once mining activities have ceased. The slopes of the borrow pit will be smoothed out, contoured and re-vegetated.

This study forms part of the Heritage Impact Assessment triggered by the development. The brief for the study was a field visit and short report identifying and assessing archaeological resources and any impact on them, an assessment of significance and recommendations regarding any mitigation required.

The field assessment was conducted on foot on 18 May 2013. Visibility of material on the ground was very good in the highly disturbed terrain of the affected area.

No archaeological material was observed.

The absence of archaeological remains at the proposed extension site indicates that the polygon is of low archaeological heritage significance, although the numerous archaeological sites in the surrounding area provide a significant context for the pit. No significant direct impact on archaeological heritage is likely if the proposed extension is developed.

No further archaeological studies or mitigation are recommended.

If any human remains are found during the development of the proposed pit extension, work in that area must cease and the South African Heritage Resources Agency (SAHRA) must be notified immediately.

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1. INTRODUCTION

Natura Viva cc was appointed by Vidamemoria Heritage Consultants on behalf of Nadeson Consulting Services to undertake an Archaeological Impact Assessment (AIA) of the proposed extension of an existing borrow pit, DR2196/22.74/L/50 (Vidamemoria pit no. 220), to the northeast of the Pakhuis Mountains in the Clanwilliam area, West Coast District Municipality (Figure 1). The affected area lies in agricultural land close to the Brandewyn River and approximately 10 km to the south of the Doring River. Access to the quarry will be via the DR2196. Material excavated from the proposed extension will be used for the maintenance of gravel roads in the area. The pit will be rehabilitated once mining activities have ceased. The slopes of the borrow pit will be smoothed out, contoured and re-vegetated.

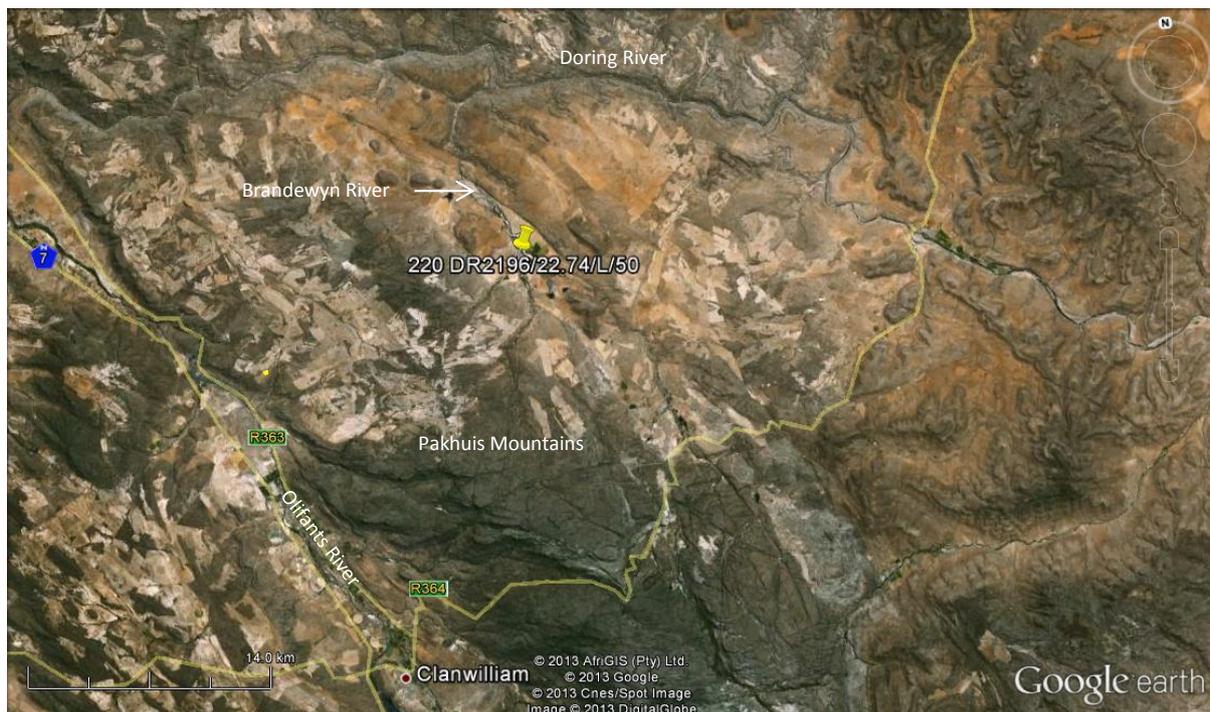


Figure 1: Google earth image showing the location of the proposed extension of existing borrow pit DR2196/22.74/L/50 (Vidamemoria pit no. 220) in relation to the Brandewyn, Doring and Olifants Rivers. The relevant 1:50 000 topographical map is 3118DD Bulshoek.

2. LEGAL FRAMEWORK

Section 38 of the National Heritage Resources Act (Act 25 of 1999) is triggered by certain types of development, including changes of character to an area exceeding 5 000m², and makes provision for compulsory Heritage Impact Assessments to assess the potential impacts of such proposed developments on heritage resources. In terms of Section 38(1), a Notification of Intent to Develop (NID) form was submitted to Heritage Western Cape (HWC) by Vidamemoria. Following comment from HWC (case number 121011JL03) an AIA was included amongst the requirements according to Section 38(8) of the Act.

3. TERMS OF REFERENCE

The terms of reference for the AIA stipulated a field visit to locate and map archaeological resources, a short report dealing with the field observations, an assessment regarding the significance of the resources (in the context of other studies in the area) and any impacts on them, as well as recommendations regarding any mitigation required.

4. STUDY APPROACH

4.1 Methods

Fieldwork for the proposed extension was undertaken by the author on 18 May 2013. A Site plan indicating the affected area was provided by Nadeson for the Phase 1 survey. The area was covered on foot and the tracks were recorded by a Garmin GPSMAP 62s set on the WGS84 datum (Figure 2). The site was extensively photographed.

4.2 Limiting factors

Visibility of archaeological remains on the ground was very good.

5. DESCRIPTION OF AFFECTED ENVIRONMENT AND SITE

5.1 Archaeological background:

The SAHRA database (2009) indicates only one archaeological impact study (Halkett et al. 1997) for the northern part of the Cederberg which includes the Pakhuis Mountains, although the rich archaeological history of the Cederberg, Olifants River Valley and the Doring River area is well-known as a result of the many research projects, including excavations and rock art surveys, undertaken over several decades, for example Parkington & Poggenpoel (1971); Parkington (1980); Manhire et al. (1983); Yates et al. (1985); Van Rijssen (1992); Sealy et al. (2000); Parkington (2003); Orton & Mackay (2008). The region has been a focus of human habitation for well over five hundred thousand years. Material dating from the Early Stone Age (ESA), Middle Stone Age (MSA), Later Stone Age (LSA) hunter-gatherers and pastoralists and colonial times has been recorded, mostly as scatters of artefacts lying on the current land surface, but some MSA and many LSA sites are also found in primary context in rock shelters. Of significance to the present study is the fact that many archaeological sites, including rock painting sites, have been recorded along the Brandewyn River, in the area to the south of Pit 220, and in the Putslaagte, over 12 km to the east of Pit 220 (Halkett 1984; Halkett et al. 1997; Manhire et al. 1983; Parkington 2003).

The relevant archaeological impact study mentioned above (Halkett et al. 1997) is the assessment of 7 proposed dam sites for the Olifants/Doring River Basin. One of the proposed sites, namely that for the Melkbosrug Dam, lies approximately 9 km to the north of Pit 220. A large number of archaeological sites were recorded in the caves and rock shelters of the Doring River ravines and side kloofs. These include important rock painting sites, as well as caves with archaeological deposits. Numerous pre-colonial and colonial

graves occur in the soft, deep soils of outwash fans of the rivers (Halkett et al. 1997). Recent archaeological impact studies not reflected in the 2009 SAHRA database are the impact assessments of the proposed extension of several borrow pits along the DR2196 (Tusenius 2012, 2013). Despite the rich archaeological context of these sites, no archaeological remains were observed during the surveys.

5.2 Borrow pit DR2196/22.74/L/50 (Vidamemoria pit no. 220)

Approximate area: 16 700m²

Location: S 31° 58' 1.12" E 18° 59' 7.67"

Farm name and number: Portion 1 of Farm No. 643

Environment: The existing quarry and proposed extension are situated on fairly flat-lying land over 400m to the west of the Brandewyn River (Figures 2, 4, 5 and 6). The DR2196 forms the western boundary of the polygon. The affected area, as well as the terrain between the polygon and the river, has been highly disturbed by previous agricultural activities, quarrying, animal burrowing and trampling by cattle. It has subsequently been invaded by alien *Proposis* sp. trees, a few bushes and sparse grass (Figures 3 to 7). The polygon is covered by clayey, silty sand with sub-angular mudrock gravel with occasional clasts of sandstone and quartzite (Figures 3, 4 and 5). Sandy alluvium occurs in the slightly lower-lying area between the polygon and the river (Figures 6 and 7). Calcrete nodules occur in one area to the south of the polygon. A track, dry canal and very dense alien vegetation separate the whole area from the Brandewyn River (Figures 2 and 8).

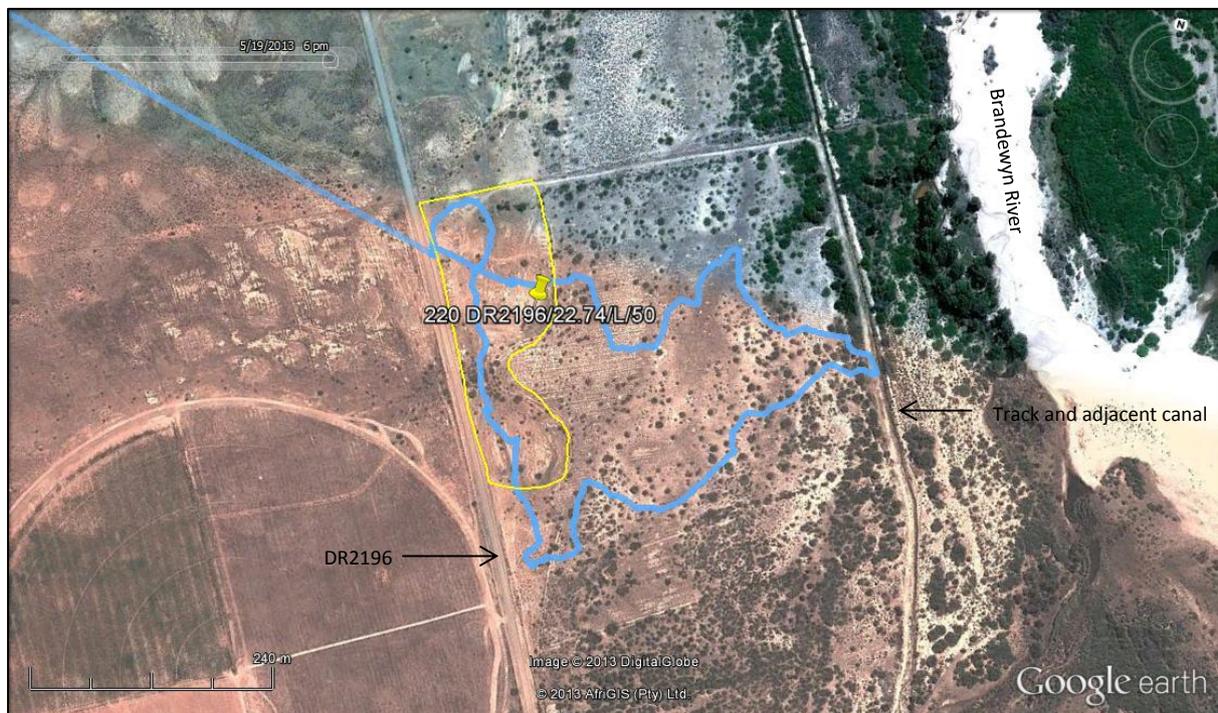


Figure 2: Google earth image showing the proposed extension of the existing borrow pit 220, the tracks of the field survey, the position of the Brandewyn River and the track with adjacent canal. Please note that the straight blue line on the top left does not indicate a survey track.

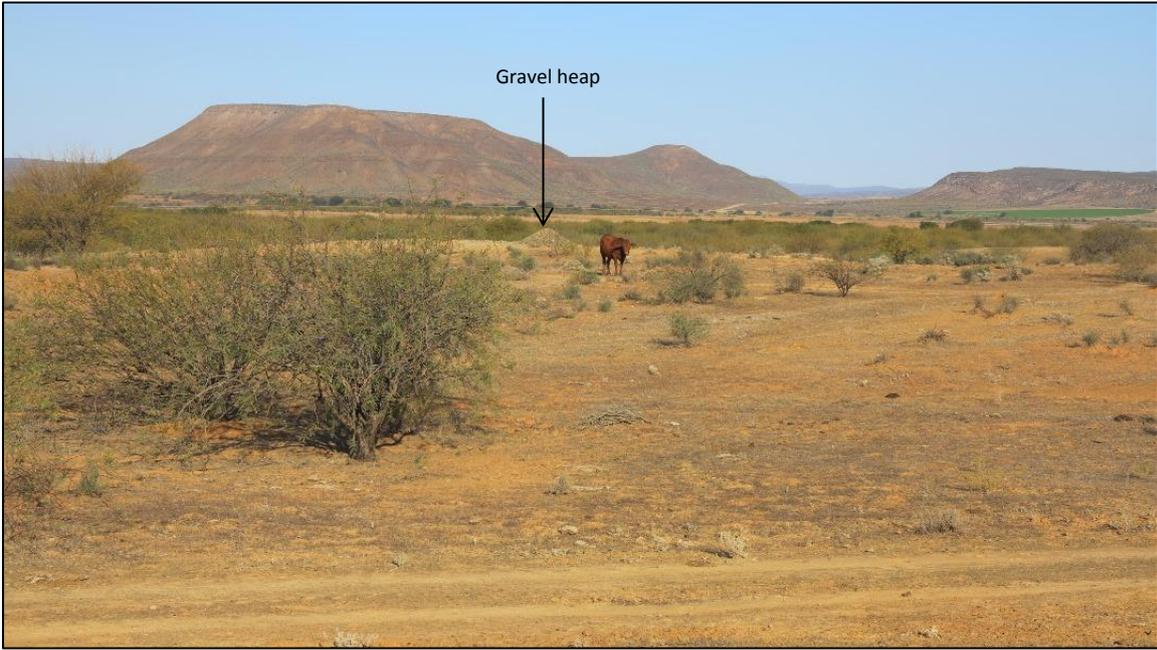


Figure 3: View towards the southeast with the slightly higher-lying terrain of the polygon covered by clayey, silty sand with mudrock gravel. The gravel heap indicates the approximate position of previous quarrying in the southern part of the polygon.



Figure 4: View towards the east with the tall blue gum trees indicating the position of the Brandewyn River. The mudrock gravel is visible in the foreground, whereas sandy alluvium covers the area closer to the river.



Figures 5 and 6: View towards the northeast with the existing quarry in the foreground and the trees indicating the Brandewyn River in the background; view towards the northeast of the slightly lower-lying area between the polygon and the river which has been invaded by *Prosopis* sp.



Figures 7 and 8: View towards the southwest with the Pakhuis Mountains in the background; view towards the northwest showing the track and dry canal to the west of the Brandewyn River.

Results of the survey: No archaeological material was observed. The few signs of flaking on a couple of pieces of quartzite did not appear to be artefactual and are probably the result of trampling.

6. SIGNIFICANCE AND RECOMMENDATIONS

The absence of archaeological remains at the proposed extension site indicates that the polygon is of low archaeological heritage significance, although the numerous archaeological sites in the surrounding area provide a significant context for the pit. No significant direct impact on the affected area is likely if the proposed extension is developed.

No further archaeological studies or mitigation are recommended.

If any human remains are found during the development of the proposed pit extension, work in that area must cease and the South African Heritage Resources Agency (SAHRA) must be notified immediately.

7. REFERENCES

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8. ACKNOWLEDGEMENTS

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