

**ARCHAEOLOGICAL IMPACT ASSESSMENT
PROPOSED SAND MINING ON THE FARM VAATJIE:
REMAINDER OF THE FARM KLEIN ZOUTE RIVIER NO.
84
CAPE TOWN**

Prepared for

NALEDI DEVELOPMENT RESTRUCTURED (PTY) LTD

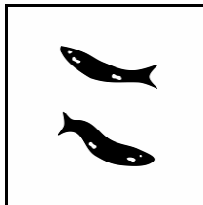
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Executive summary

An Archaeological Impact Assessment of a proposed sand mining operation on the Farm Vaatjie near Melkbosstrand in Cape Town has identified no significant impacts to pre-colonial archaeological material that will need to be mitigated prior to proposed, mining operations.

The northern boundary of the proposed sand mine is, however, the Sout River, where (elsewhere) a number of archaeological observations have been recorded.

The following findings were made during the baseline study:

- Later Stone Age flakes, chips and chunks in quartz and silcrete were documented during the study.

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

The following recommendations are made:

- Monitoring of sand mining operations must take place.
- Should any unmarked human remains be disturbed, exposed or uncovered during sand mining operations, these should immediately be reported to the archaeologist or the South African Heritage Resources Agency (Dr A. Jerardino 021 462 4502).

The above measures must be included in the Environmental Management Plan (EMP) for the proposed project.

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1. INTRODUCTION

1.1 Background and brief

Naledi Development Restructured (Pty) Ltd on behalf of Tiptrans Resources (Pty) Ltd requested that the Agency for Cultural Resource Management conduct an Archaeological Impact Assessment for a proposed sand mining operation on the Farm Vaatjie: remainder of the Farm Klein Zoute Rivier No. 84, situated near Melkbosstrand, in Cape Town.

Proposed mining operations will entail the removal of sand at an average depth of ± 1.6 m. Available top soil will be removed prior to mining and will be stored until it can be replaced after mining. All mined areas will be rehabilitated after sand mining operations and will revert back to agricultural land.

The extent of the proposed development (about 19 ha) falls within the requirements for an archaeological impact assessment as required by Section 38 of the South African Heritage Resources Act (No. 25 of 1999).

The aim of the study is to locate and map archaeological heritage sites/remains that may be negatively impacted by the planning, construction and implementation of the proposed project, to assess the significance of the potential impacts and to propose measures to mitigate against the impacts.

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 site;
- to identify and map any sites of archaeological significance within the proposed site;
- to assess the sensitivity and conservation significance of archaeological sites within the proposed site;
- 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 site

3. THE STUDY SITE

A locality map is illustrated in Figure 1.

An aerial photograph of the proposed site is illustrated in Figure 2.

The proposed site (S 33° 41 17.5 E 18° 29 33.5 on map datum wgs 84) is located on the Farm Vaatjie near Melkbosstrand in the Western Cape. Access to the site is via the R307 to Atlantis/Mamre. An existing sand mining operation occurs directly adjacent (i.e. to the south of) the proposed site. Significantly, the proposed sand mine is bound on the north by the Sout River. The receiving landscape comprises old dune formations of marine origins sand, overlaying clays of Malmesbury Shale (Lanz 2008). Much of the site is in a moderately to severely disturbed state. The eastern portion has been heavily grazed and trampled, while the western portion is infested with alien vegetation (Port Jackson). A 4 x 4 track intersects the site and there are several footpaths and tracks over the remainder of the property (Figures 3-10). Existing infrastructure comprises a lapa and recreational facilities. The surrounding land use comprises agricultural land (wheat and grazing) and sand mining. The Vaatjie homestead is located to the north east of the proposed site (refer to Figure 2).

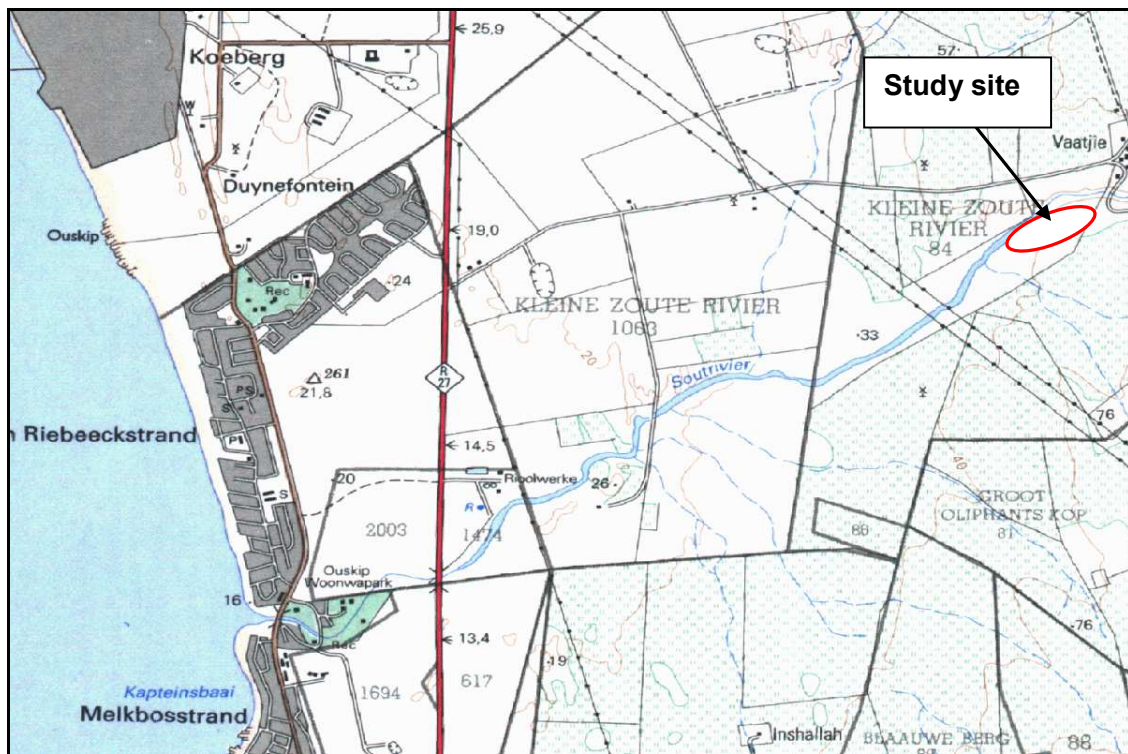


Figure 1. Locality Map (3318 CB Melkbosstrand)



Figure 2. Aerial photograph of the study site



Figure 3. View of the site facing north west



Figure 4. View of the site facing north west



Figure 5. View of the site facing north west



Figure 8. View of the site facing south east



Figure 6. View of the site facing east



Figure 9. View of the site facing south east



Figure 7. View of the site facing south west



Figure 10. View of the site facing north east

4. STUDY APPROACH

4.1 Method

The approach followed in the archaeological study entailed a foot survey of the proposed 19 ha site (refer to Figure 2).

The dune formations along the northern boundary were searched in detail, as well as the open lands alongside the Sout River.

The site visit and assessment took place on the 2nd February, 2009.

A desktop study was also undertaken.

4.2 Constraints and limitations

There were no constraints or limitations associated with the study, although the western portion of the site is infested with Port Jackson resulting in low archaeological visibility.

4.3 Identification of potential risks

Mining operations may uncover or expose pre-colonial settlement sites alongside the Sout River.

Unmarked human remains may also be uncovered or exposed during sand mining operations.

4.4. Results of the desk top study

Numerous archaeological impact assessments (or AIA's) have been undertaken in the Melkbosstrand region in the last 10 years, arising out of proposals to develop land for residential and resort purposes, infrastructure (such as roads, pipelines, powerlines, etc) and sand mining operations.

Archaeological heritage sites are well documented in the shoreline area on the Table Bay coastline, between Bloubergstrand and Duinefontein. Many Later Stone Age (LSA) shell middens as well as several important Middle Stone Age (MSA) sites have been recorded in the coastal zone (Rudner 1968; Kaplan 1993, 1997, 1998a, b, 2002a), some of which have been investigated in more detail (Deacon 1976; Deacon & Goosen 1997; Kaplan 1998c, d, Kaplan 2000a, Kaplan 2004; Sealy et al 2004).

There are numerous historical accounts of the presence of 'Strandlopers' (Khoi entrepreneurs in the trade between the Dutch and the Khoi) peopling the Table Bay coastline before and shortly after the arrival of the Dutch settlers at the Cape in 1652 (Smith 1983). From his residence at the Fort in Cape Town, Jan Van Riebeeck, in 1652, recorded 'many fires, burning in the mountains on the opposite side of the bay...' (Thom 1952:102).

In recent years, sites have also been documented in the interior of the region. LSA tools, pottery and fragments of ostrich eggshell have been documented on the farms Blaauwberg (Joyce's Dairy) and at Groot Oliphantskop and Brakkuil west of the

Mamre/Atlantis Road (R307), while ancient Early Stone Age (ESA) and Middle Stone Age (MSA) tools have been found on the farms Vaatjie, Witdam, Brakkuil and Joyce's Dairy (Kaplan 1996, 2000b, c).

Rare Later Stone Age quarry sites have also been documented on the farms Groot Oliphantskop and Keert de Koe west of the N7 (Kaplan 1996, 2007) and at Vissershok (Kaplan 2002).

Recent research suggests that Khoi pastoralist sites may be found inland from the coast, where factors such as proximity to water, nearby fertile soils that offered better grazing, and the relative proximity to the sea and its resources, created conditions for such, settlement (Sealy et al 2003).

At least 19 unmarked Khoisan burials have been uncovered from the coastal dunes between Bloubergstrand and Melkbosstrand (Deacon & Goosen 1997; Kaplan 2000a, Kaplan 2002a; Yates 2001). Up to six burials were documented on the site of the Pick and Pay shopping centre at Melkbosstrand, while several burials were exposed at the site of the Melkbosstrand Post Office. Burials have also been uncovered at Big Bay in Bloubergstrand. Importantly, two burials associated with stone tools and ostrich eggshell beads were excavated from sand dunes on the farm Groot Oliphantskop just a few kilometers to the south of the Farm Vaatjie (Kaplan 1996).

According to Mossop (1963), the remains of the historic Old Cape Road are (were once) visible on the farms Groot Oliphantskop and Vaatjie.

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 HHR 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

No coherent archaeological sites were documented during the baseline study, but small numbers of LSA tools (mainly quartz flakes, chunks and chips and a few silcrete flakes) were found during the study of the proposed sand mine. Most of the tools were found in or alongside the 4 x 4 track and disturbed areas that intersects the proposed mine site, while several, quartz flakes and chunks and two silcrete flake was found on the sand banks alongside the (heavily wooded) Sout River.

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

No archaeological remains were found on the marine dunes aligned along the southern boundary of the proposed site, but sites might well be buried beneath the wind blown sands. It is therefore important to note, that a well preserved LSA site with stone tools, pottery, ostrich eggshell and beads were documented in a deflated basin alongside the Sout River on the Farm Brakkuil directly to the east of the Farm Vaatjie (Kaplan, 2000b), while LSA tools such as flakes, scrapers, backed tools and adzes, have been documented on the banks of the Sout River on the farm Keert de Koe (Kaplan 2007). Stone flakes and tools have also been found near the mouth of the Sout River at Duinefontein (Kaplan 2005). The presence of sites along the Sout River is therefore well documented.

Two Khoisan burials, with stone tools and ostrich eggshell beads were also exposed when a large sand dune was removed on the Farm Groot Oliphantskop, just a few kilometers to the south of the Farm Vaatjie (Kaplan 1996).

7. IMPACT STATEMENT

The Archaeological Impact Assessment of a proposed sand mining operation on the Farm Vaatjie near Melkbosstrand has identified no significant impacts to pre-colonial archaeological material that will need to be mitigated prior to proposed, mining operations.

LSA settlement sites may, however, be exposed or uncovered during sand mining operations.

Unmarked human burials may also be uncovered or exposed during sand mining operations.

8. RECOMMENDATIONS

With regard to proposed sand mining operations on the Farm Vaatjie: remainder of the Farm Klein Zoute River No. 84 the following recommendations are made:

- Monitoring of sand mining operations must take place.
- Should any unmarked human remains be disturbed, exposed or uncovered during sand mining operations, these should immediately be reported to the archaeologist or the South African Heritage Resources Agency (Dr A. Jerardino 021 462 4502). Burials must be not be removed or disturbed until inspected by the archaeologist.

These measures must be included in the Environmental Management Plan (EMP) for the proposed project.

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