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**PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT
PROPOSED SAND MINING ON THE
FARM NO. 1122 BORDEAUX
MALMESBURY DISTRICT
WESTERN CAPE PROVINCE**

Prepared for:

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HERITAGE RESOURCE MANAGEMENT SERVICE
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Executive summary

Mr Charl Marais of Malans Quarry requested that the Agency for Cultural Resource Management conduct a Phase 1 Archaeological Impact Assessment for a proposed sand mining operation on the Farm No. 1122 Bordeaux, situated in the Malmesbury District, Western Cape Province.

The extent of the proposed development (about 90 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 and 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.

The subject property (currently zoned Agriculture) is located at the southern end of the Paardeberg Mountains, about 20 kms south of Malmesbury. The farm is accessed via the Agter Paardeberg Road, between Malmesbury and Paarl (R45). The proposed site is flat, extremely sandy, and has been ploughed and planted with vegetable crops for more than 25 years. The bulk of the property is currently under intensive vegetable crop production. Some land at the north east has been used mainly for cereal crops. Very little natural vegetation occurs on the property and it is surrounded by vast tracts of similarly transformed farmland. There are no significant landscape features occurring on the proposed site.

No archaeological heritage remains were located during the baseline study.

The Phase 1 AIA has identified no significant impacts to pre-colonial archaeological material that will need to be mitigated prior to the proposed development activities.

Early Stone Age artefacts may be exposed on underlying ferruginous gravels and clay, once the topsoil has been stripped from the site.

It is very unlikely (given the severely disturbed context of the site), but unmarked human burials may be uncovered or exposed during sand mining operations.

With regard to proposed sand mining operations on the Farm No. 1122 Bordeaux, situated in the Malmesbury District, the following recommendations are made

- Monitoring of sand mining operations is required in case Early Stone Age tools are exposed on ferruginous gravels and clays underlying the topsoil.
- Should any human remains be disturbed, exposed or uncovered during excavations and earthworks for the proposed project, these should immediately be reported to the South African Heritage Resources Agency (Mrs Mary Leslie 462 4502), or Heritage Western Cape (Dr A. Jerardino 483 9692). Burial remains should not be disturbed or removed until inspected by the archaeologist.

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1. INTRODUCTION

1.1 Background and brief

Mr Charl Marais of Malans Quarry requested that the Agency for Cultural Resource Management conduct a Phase 1 Archaeological Impact Assessment for a proposed sand mining operation on the Farm No. 1122 Bordeaux situated in the Malmesbury District, Western Cape Province.

The extent of the proposed development (about 90 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 and 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:

1. to determine whether there are likely to be any archaeological sites within the proposed site;
2. to identify any sites of archaeological significance within the proposed site;
3. to assess the sensitivity and conservation significance of archaeological sites;
4. to assess the status and significance of any impacts resulting from the proposed development; and
5. 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 (currently zoned for Agriculture) is located at the southern end of the Paardeberg Mountains, about 20 kms south of Malmesbury. The farm is accessed via the Agter Paardeberg Road, between Malmesbury and Paarl (R45). GPS co-ordinates for the site are S 33° 39 063 E° 18 48 831 on map datum wgs 84. The subject property is flat, extremely sandy, and has ploughed and planted with vegetable crops for more than 25 years (Figures 4-9). Previously, the property was covered in vineyards. Some ferruginous gravel deposits occur in the far north eastern portion of the property. The property is currently under intensive vegetable crop production.

Some land to the north east is mainly used for cereal crops. A large farm dam falls outside the proposed mining footprint. Very little natural vegetation occurs on the property, and is surrounded by vast tracts of similarly transformed farmland. There are no significant landscape features occurring on the proposed site. A modern farm house (built in the 1950's) and outbuildings occur on the property (Figures 10 & 11). The home will be retained by the current owner, who will lease the land to the applicant (i.e. Malans Quarry) for sand mining operations. Existing access roads will be used for the proposed sand mining activities, and no new access roads are envisaged.

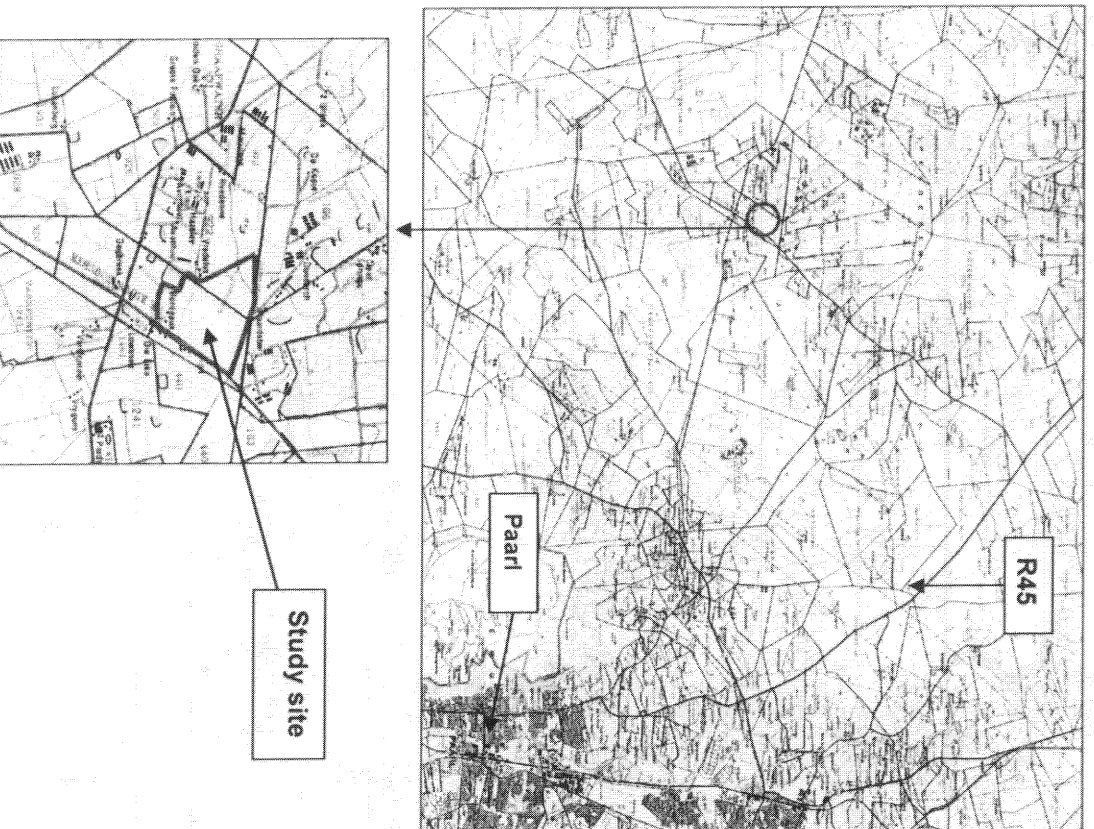


Figure 1. Locality Map (3318 DB Paarl)

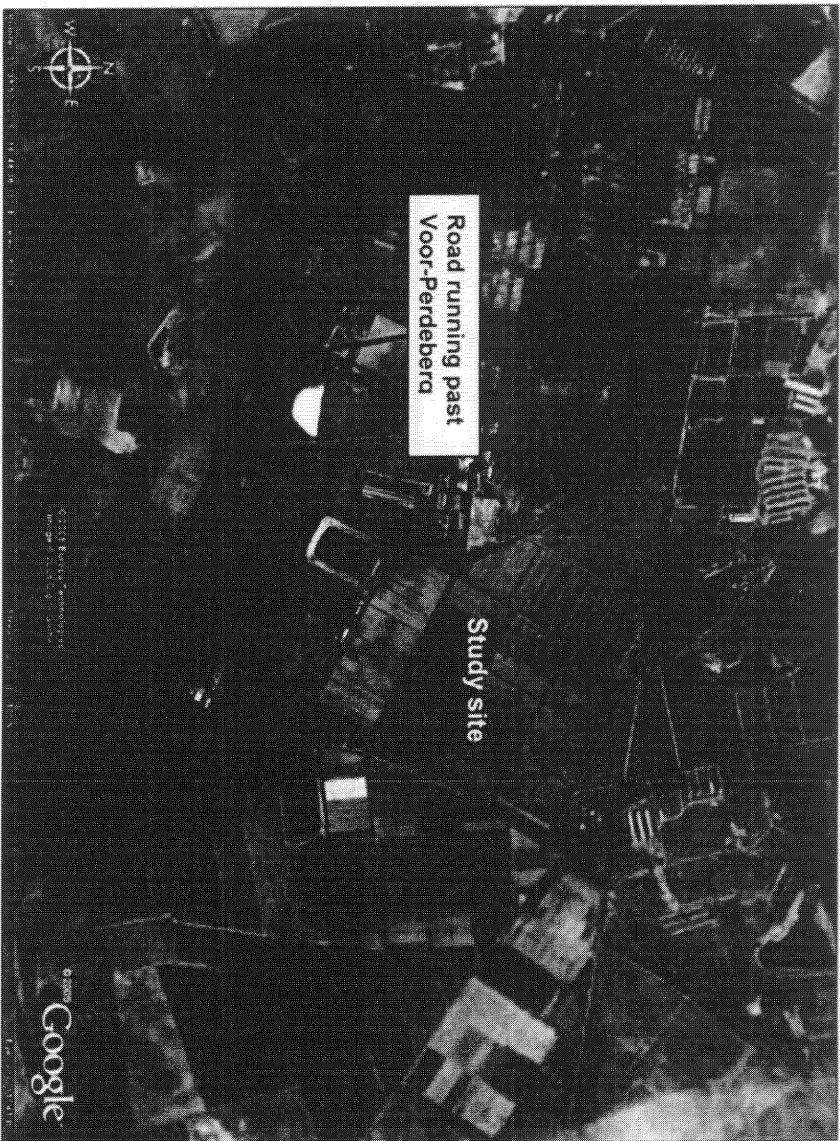


Figure 2. Aerial photograph of the proposed site

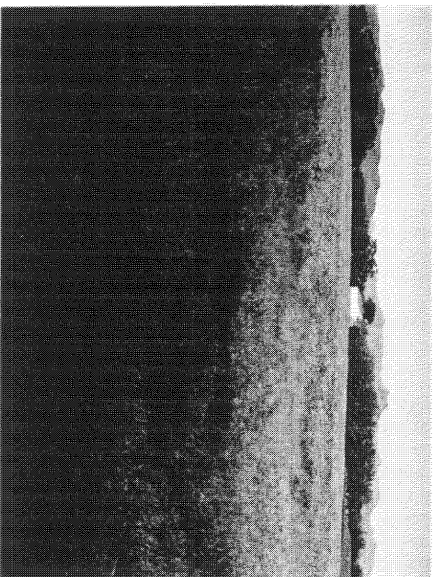


Figure 3. View of the site facing north west

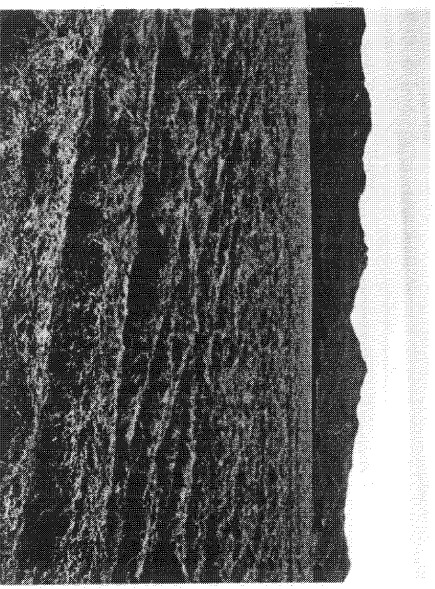


Figure 4. View of the site facing north east.



Figure 5. View of the site facing north east



Figure 7. View of the site facing south west

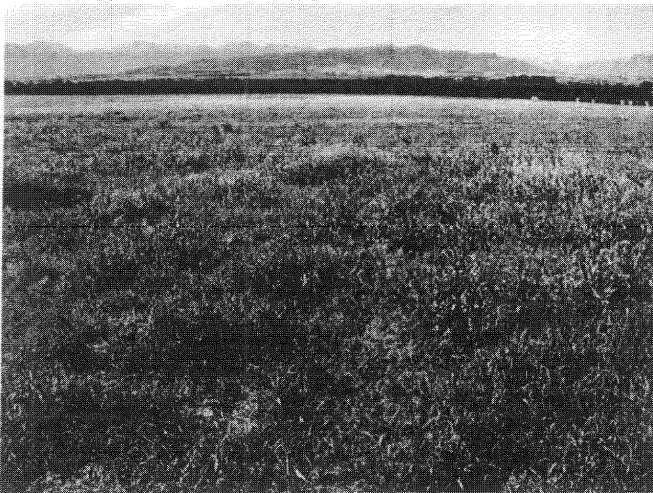


Figure 6. View of the site facing south

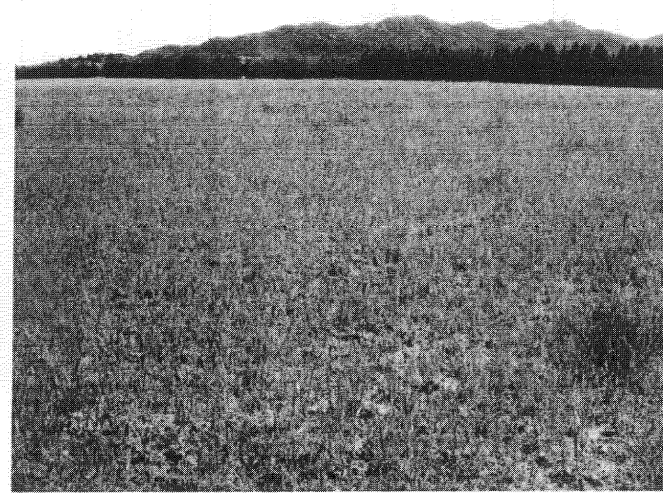


Figure 8. View of the site facing north east

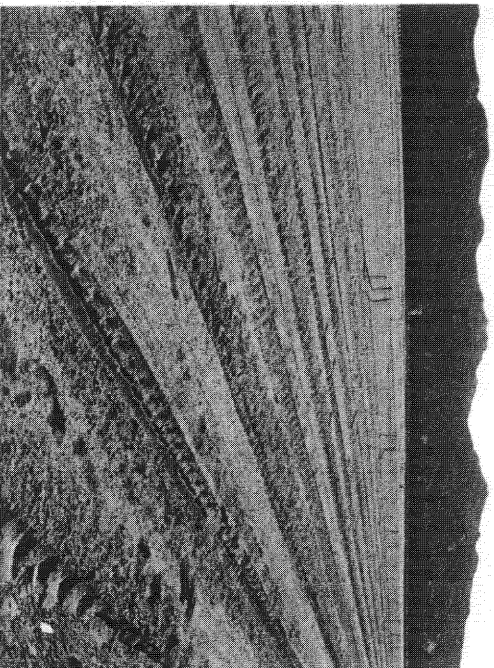


Figure 9. View of the site facing north east

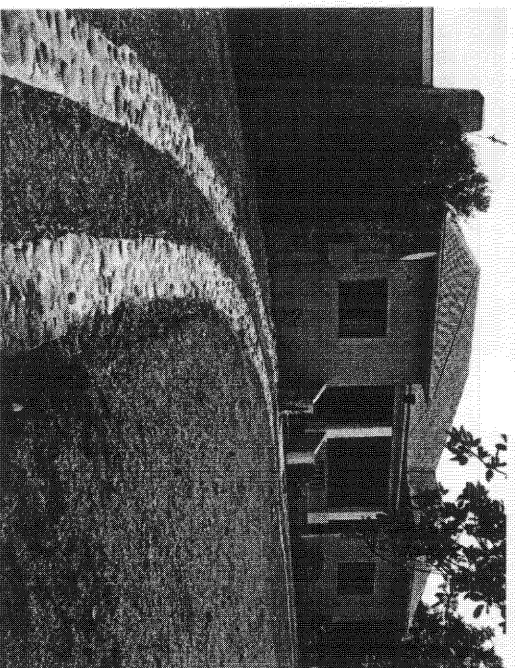


Figure 10. View of the main farmhouse

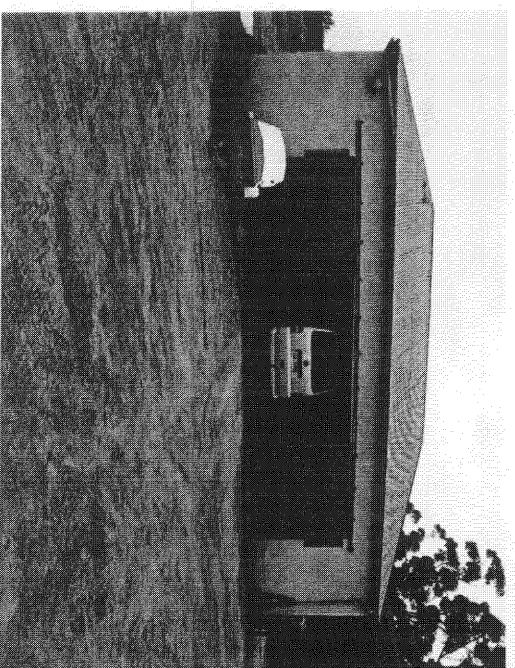


Figure 11. Outbuilding on the property

4. STUDY APPROACH

4.1.1 Method

The approach followed in the archaeological study entailed a foot survey of the proposed sand mining site. Exposed ferruginous gravels in the north eastern portion of the property were targeted, as Early Stone Age tools are known to be associated with such deposits. Gravel deposits exposed in some runoff trenches on the farm were also inspected.

The site visit and assessment took place on the 15th September, 2006.

A desk-top study was also undertaken.

4.1.2 Constraints and limitations

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

4.1.3 Identification of potential risks

Early Stone Age tools may be exposed on underlying ferruginous gravels and clay, once sand deposits (i.e. the topsoil) have been stripped from the site.

It is unlikely but unmarked human burials may also be exposed or uncovered during proposed sand mining operations.

4.1.4 Results of the desk-top study

No archaeological heritage remains have been located in the immediate surrounding environment, but Early Stone Age (ESA) tools have been found on several farms surrounding the Perdeberg Mountain in the north, just outside Malmesbury (personnel observation).

Several, medium to low density scatters of archaeological heritage remains were located during a survey of part of the Farm Olyvenhoek 818, Remainder, situated in the Malmesbury District (Kaplan 2006a), about 10 kms south of Malmesbury. These included scatters of Later Stone Age (LSA) tools, including formal tools and pottery. A few Early Stone Age (ESA) tools were also counted during the study for a proposed sand mining operation.

Scatters of ESA and Middle Stone Age (MSA) tools were located during a study of a proposed landfill site on the Farm Botelfontein, situated about midway between Kalbaskraal and Kliphuwel (Halkett 2006). It is interesting to note that two rare, Still Bay points were found during the survey.

Low density scatters of ESA and MSA tools were also located during a study of a proposed clay quarry on the farm Glen Lossie, situated about midway between Malmesbury and Durbanville on the R302 (Kaplan 2006b). The remains occur in a severely disturbed context.

5. LEGISLATIVE REQUIREMENTS

The following section provides a brief overview of the relevant legislation with regard to the archaeology of Bordeaux Farm.

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.

5.1.2 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.

5.1.3 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 archaeological heritage remains were located during the baseline study.

7. IMPACT STATEMENT

Early Stone Age artefacts may be exposed on underlying ferruginous gravels and clay, once the topsoil has been stripped from the site.

It is unlikely (given the severely disturbed context of the site), but unmarked human burials may be uncovered or exposed during sand mining operations.

REPORT RECEIPT FORM

REPORT TYPE (please tick)

File Number: 9/2/060/0028

AIA Phase 1 ; Phase 2

Permit Number:

Other (please specify)

REPORT SENT BY (please tick)

SAHRA Prov. Office; PHRA

Developer/Consultant

Province: WCOther (please specify) HWCAUTHOR(S): Townsham VorkenTITLE: Phase 1 Archaeological Impact Assessment proposed sand mining on the farm no 1122 Bordeaux Molwenburg District, Western Cape ProvinceCRM Group: ✓EIA CONSULTANTS: Molans SwamyDATE: (month & year): September 2006

ACTION	DATE RECEIVED	DATE	INITIAL
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ASSESSED	Permit Database (all Permit Reports) Archaeological Impact Assessment		
ARC sent to: (please tick)	Developer Consultant PHRA Author SAHRA Prov. Original: Archaeology Unit Filing Cabinet		
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