CULTURAL HERITAGE PROJECT OF THE FARM RIETVLEY 320 IS, SASOL FINE ASH DAM (FAD) 6
PHASE II
Investigation focussing on Site 1, Site 3 and Site 6 on the farm Rietvley 320 IS (Portions 3, 8, 9, 10 and Remaining Extent 2), Govan Mbeki Local Municipality, Gert Sibande District Municipality, Mpumalanga

For

Project Applicant Sasol Synfuels (Pty) Ltd Synfuels Road Secunda 2302 Mpumalanga Tel: 0176101111	**Environmental Consultant** SRK Consulting (Pty) Ltd Block A, Menlyn Woods Office Park 291 Sprite Avenue Faerie Glen Pretoria 0081 Tel: 012 361 9821 Fax: 012 361 9912 acaddick@srk.co.za

By

Francois P Coetzee Department of Anthropology & Archaeology University of South Africa PO Box 392 Pretoria 0003 Tel: (012) 429 6297 Fax: (012) 429 6091 coetzfp@unisa.ac.za	Joanna P Behrens Department of Anthropology & Archaeology University of South Africa PO Box 392 Pretoria 0003 Tel: 012-429 6846 behrejp@unisa.ac.za

Date:	**April 2015**
Version:	**2 (Final Revised)**

Executive Summary

This report contains the results from a comprehensive Phase 2 Heritage Impact Assessment investigation in accordance with the provisions of Sections 38(1) and 38(3) of the *National Heritage Resources Act* (Act No. 25 of 1999). Sasol Technology (Pty) Ltd (Sasol) obtained an Environmental Authorisation (EA) in terms of the National Environmental Management Act, Act 107 of 1998 (NEMA) for the proposed construction of the FAD 6 from Mpumalanga Department of Economic Development Environment and Tourism (MDEDET) in August 2012 (MDEDET Reference Number: 17/2/3/ GS-6).

Since the issuing of the EA (2012), changes have been made in terms of the design philosophy for the FAD 6 itself as well as with the associated water management structures. The implication of these changes in terms of the approved EA will need to be assessed and the EA will need to be aligned to reflect the proposed changes.

A Phase 1 Heritage Impact Assessment was conducted in 2011 (see Coetzee 2011) and certain recommendations were made. Emanating from these and also as a result of a revised FAD 6 layout the scope of the Phase 2 investigation was revised.

The Farmhouse Complex on Portion 3 of the farm Rietvley 320 IS was extensively investigated and recorded. All the relevant sites that are interpreted as part of this landscape namely Sites 1, 3, and 6 were archaeologically investigated using standard fieldwork standards and practice.

Based on the Phase 2 research and results, the following is recommended:

- The Farmhouse Complex consisting of the relevant sites (Sites 1, 3 & 6) has been mapped, described and photographed;
- Excavations were undertaken and the analyses of all the cultural material have been completed for the Midden (Site 6);
- No further archaeological and historical work are recommended; and
- An application for a Destruction Permit for Sites 1, 3, and 6 may be applied for from SAHRA.

Please also note the following:

Archaeological deposits usually occur below ground level. Should archaeological artefacts or skeletal material be revealed in the area during development activities, such activities should be halted, and a university or museum notified in order for an investigation and evaluation of the find(s) to take place **(*cf*. NHRA (Act No. 25 of 1999)**, Section 36 (6)).

Definitions and abbreviations

Midden:	Refuse that accumulates in a concentrated heap.
Stone Age:	An archaeological term used to define a period of stone tool use and manufacture
Iron Age:	An archaeological term used to define a period associated with domesticated livestock and grains, metal working and ceramic manufacture
NHRA:	National Heritage Resources Act (Act No. 25 of 1999)
SAHRA:	South African Heritage Resources Agency

SAHRIS:	South African Heritage Resources Information System
PHRA-G:	Provincial Heritage Resources Authority - Gauteng
GDARD:	Gauteng Department of Agriculture and Rural Development
HIA:	Heritage Impact Assessment
DMR:	Department of Mineral Resources

Permit Details

The excavations were conducted in terms of the permit (Permit ID: 1926, Case ID: 5690, SAHRA Ref: 9/2/227/0006) issued by the South African Heritage Resources Agency (SAHRA) on 9 October 2014.

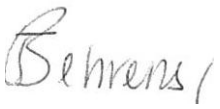
Declaration

I, Francois Coetzee, hereby confirm my independence as a cultural heritage specialist and declare that I do not have any interest, be it business, financial, personal or other, in any proposed activity, application or appeal in respect of the listed environmental processes, other than fair remuneration for work performed on this project.

_____

Francois P Coetzee
Cultural Heritage Consultant
Accredited Archaeologist for the SADC Region
Professional Member of ASAPA (CRM Section) Reg no: 28

I, Joanna Behrens, hereby confirm my independence as a cultural heritage specialist and declare that I do not have any interest, be it business, financial, personal or other, in any proposed activity, application or appeal in respect of the listed environmental processes, other than fair remuneration for work performed on this project.



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Joanna Behrens
Cultural Heritage Consultant
Accredited Archaeologist for the SADC Region
Professional Member of ASAPA (CRM Section) Reg no: 011

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1. Introduction and Background

Sasol Synfuels (Pty) Ltd originally planned to expand their Fine Ash Dam (FAD) capacity in 2010 with a proposed expansion which included the following:

- Two new fine ash dams (or alternatively a large single dam)
- New road alignment
- New conveyor belt (relocation)

However, please note that two alternatives were proposed in the implementation of the FAD 6 project. The yellow diagonal line is a conveyor belt that was planned for construction at a later stage. The proposed new road is indicated with the black line.

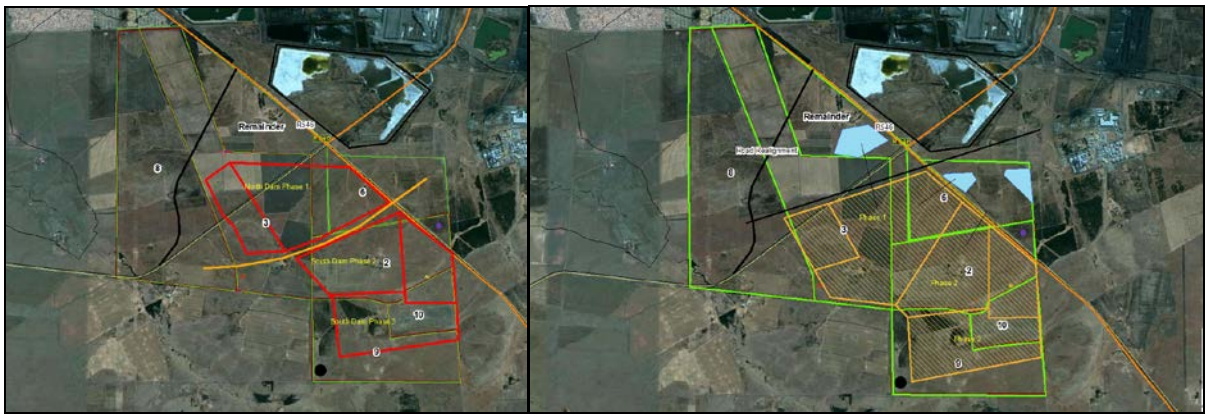

Figure 1: Proposed alternatives for the FAD 6 (Left: Alternative 1, Right: Alternative 2)

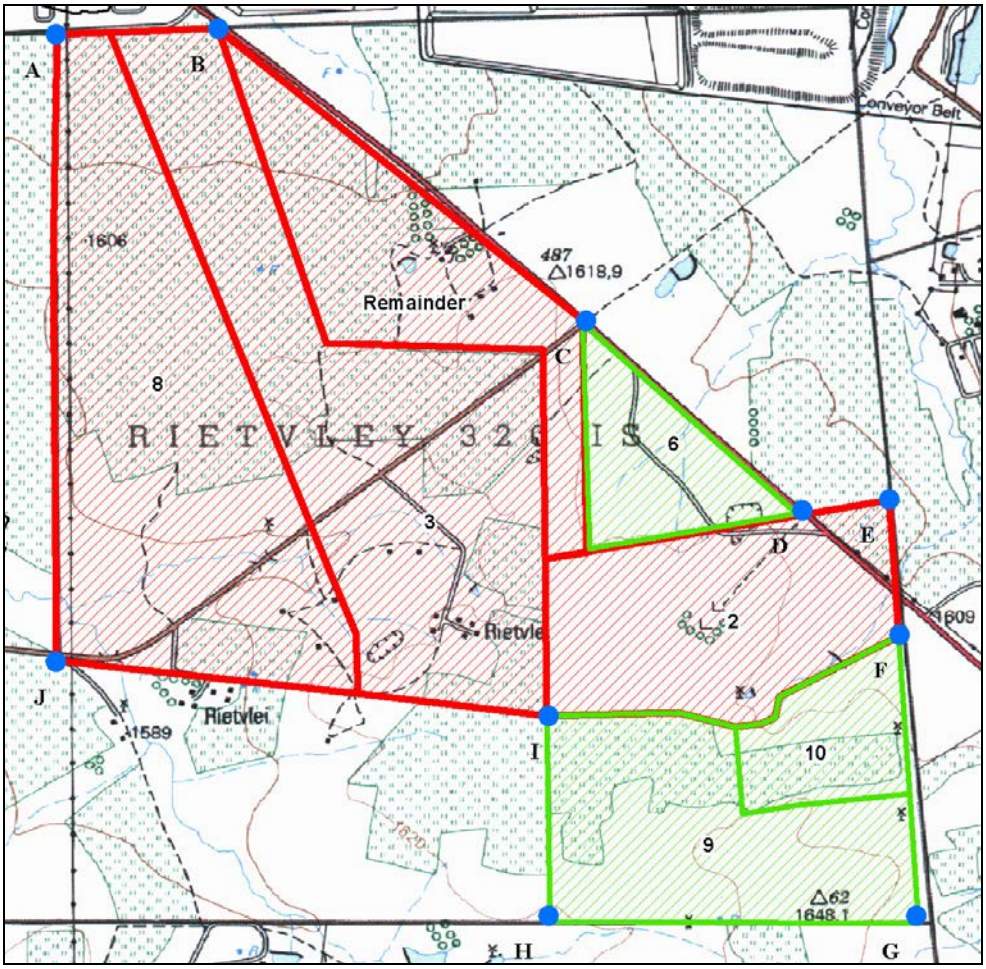

Figure 2: Topographic map indicating the farm Rietvley 320 IS relative to the proposed Phase 1 (Alternative 2)

As part of the Environmental Authorisation process a Phase 1 Cultural Heritage Impact Assessment was requested by SRK Consulting in 2011. The survey was conducted and report completed in August 2011 (see Coetzee 2011). The following heritage resources were recorded:

Site No	Coordinates	Site Type	Statement of Significance	Impact		Proposed Mitigation
				Alt 1	Alt 2	
1	29.118229°E 26.603399°S	Historical farm house complex	Medium (Provincial level)	Peripheral	Destruction	Phase 2: Survey and Mapping Destruction permit from SAHRA
2	29.11962°E 26.603664°S	Graveyard	High (Local level)	Peripheral	Destruction	Social consultation Exhumation and reburial Permit from SAHRA
3	29.117647°E 26.602756°S	Stone livestock kraal	Medium (Provincial level)	Destruction	Destruction	Phase 2: Survey and Mapping Destruction permit from SAHRA
4	29.110599°E 26.603526°S	House foundation	Medium (Local level)	Destruction	None	Phase 2: Survey and Mapping Destruction permit from SAHRA
5	29.109982°E 26.603419°S	House foundation	Low (Local level)	Destruction	None	No Phase 2 required Destruction permit from SAHRA
6	29.118842°E 26.603266°S	Midden	Medium (Provincial level)	Peripheral	Destruction	Phase 2: Survey and Mapping Destruction permit from SAHRA
7	29.131425°E	Stone kraal	Low (local level)	Destruction	Destruction	No Phase 2 required

	26.604563°S					Destruction permit from SAHRA
8	29.130736°E 26.602700°S	Historical farm house complex	Low (Local level)	Destruction	Destruction	No Phase 2 required Destruction permit from SAHRA
9	29.129395°E 26.603068°S	2 Graves	High (Local level)	Destruction	Destruction	Social consultation Exhumation and reburial Permit from SAHRA
10	29.134947°E 26.608502°S	House foundation	Low (Local level)	Destruction	Destruction	None: sufficiently recorded
11	29.135348°E 26.60916°S	Possible grave	High (Local Level)	Destruction	Destruction	Social consultation Exhumation and reburial Permit from SAHRA

Table 1: Summary of sites with ratings, significance and mitigation measures

Sasol Technology (Pty) Ltd (Sasol) obtained an Environmental Authorisation (EA) in terms of the National Environmental Management Act, Act 107 of 1998 (NEMA) for the proposed construction of the FAD 6 from Mpumalanga Department of Economic Development Environment and Tourism (MDEDET) in August 2012 (MDEDET Reference Number: 17/2/3/ GS-6). Sasol has an approved Water Use Licence (WUL) and Waste Licence for its existing operations and proposes to amend this WUL and Waste Licence to include FAD 6.

Since the issuing of the EA (2012), changes have been made in terms of the design philosophy for the FAD 6 itself as well as with the associated water management structures. The implication of these changes in terms of the approved EA will need to be assessed and the EA will need to be aligned to reflect the proposed changes. In addition, these activities will require Section 21 authorisation in terms of the National Water Act, Act 36 of 1998 (NWA) and a Waste Licence in terms of the National Environmental Management: Waste Act, Act 59 of 2008) (NEMWA).

SRK Consulting submitted a proposal for the following:

- An amendment to the existing EA in terms of NEMA;
- Water Use Licence Application (WULA);
- Waste Licence Application (WLA);
- Associated Stakeholder Engagement.

The outline of the proposed FAD 6 development was subsequently amended with the addition of the following:

- FAD 6 (revised extent)
- West Return Water Dam (RWD)
- North Return Water Dam (RWD)
- North Return Water Dam pipeline

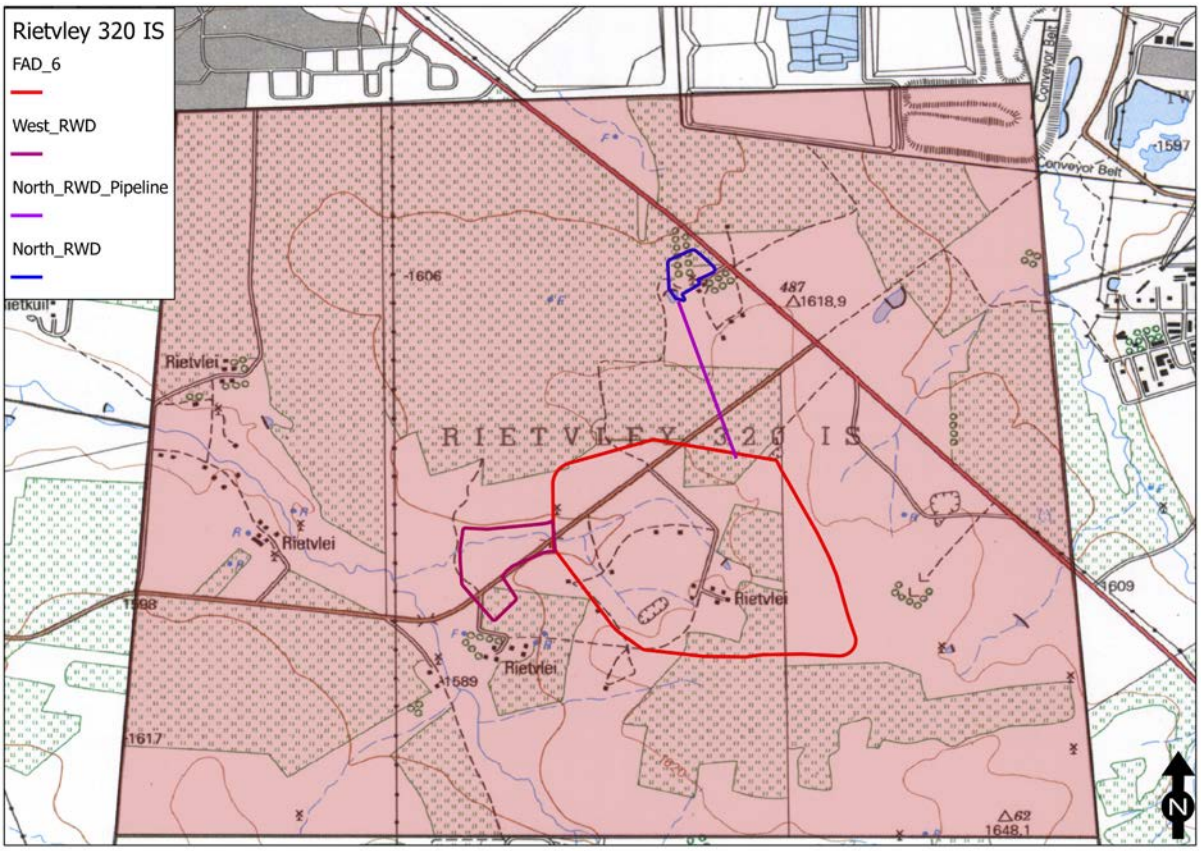

Figure 3: Location and extent of amended FAD 6 on the farm Rietvley 320 IS

According the original Phase 2 heritage proposal the following historical structures were listed to be affected by the development (Coetzee 2015a):

- Site 1: Historical farm house complex
- Site 2: Graveyard
- Site 3: Stone livestock kraal (associated with Site 1)
- Site 6: Midden (historic rubbish dump associated with Site 1)
- Site 7: Stone Kraal
- Site 8: Historical farm house complex
- Site 10: House foundation

However, due to the revised extent of the FAD 6 project only the following sites were finally identified for Phase 2 investigation and mitigation:

- Site 1: Historical farm house complex
- Site 2: Graveyard
- Site 3: Stone livestock kraal (associated with Site 1)
- Site 4: Historical house foundation
- Site 5: Historical house foundation
- Site 6: Midden (historic rubbish dump associated with Site 1)

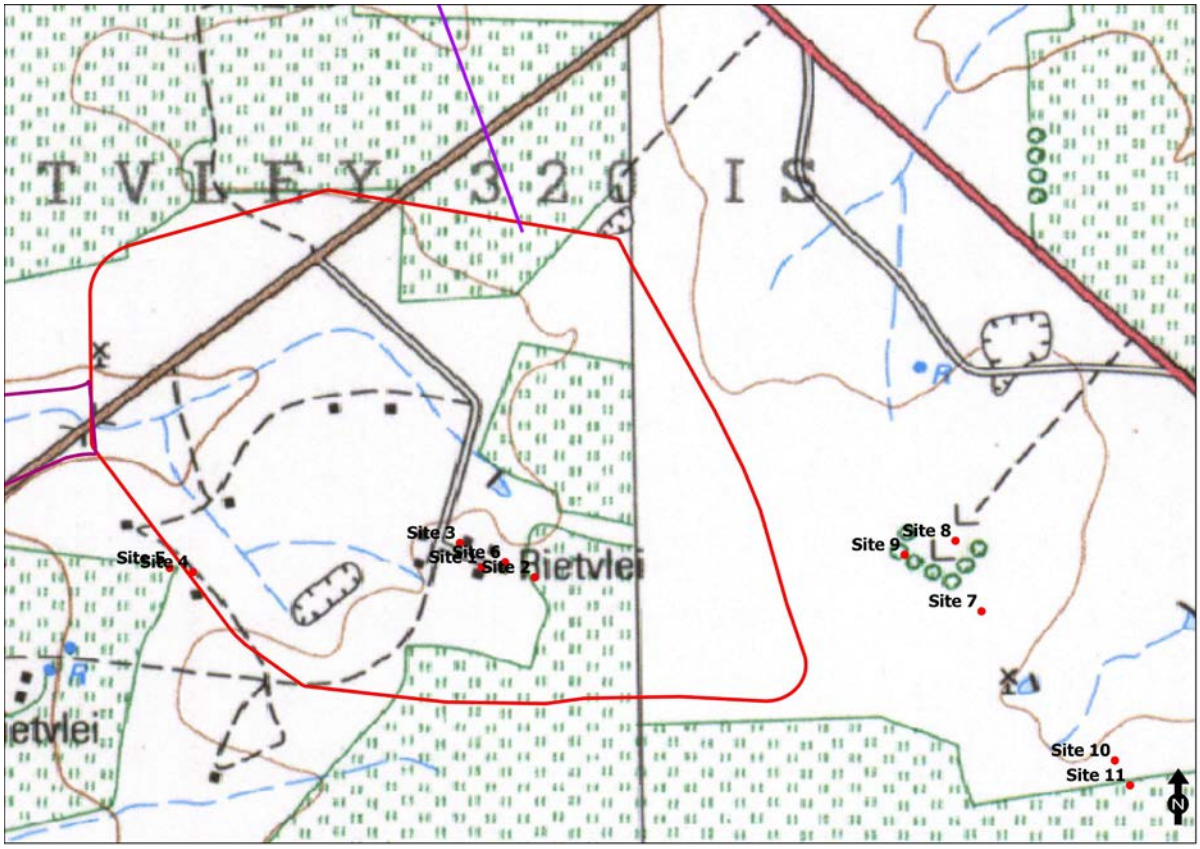

Figure 4: Location and extent of FAD 6 relative to the location of the recorded heritage sites

Please note that Site 2 (Graveyard with 4 graves) was mitigated by A Pelser Archaeological Consulting cc (see Pelser & Halvatzis 2014) as part of a large-scale grave relocation project for Sasol Synfuels (Pty) Ltd and falls outside the scope of this report.

In addition, a new burrow pit was excavated and an existing burrow pit was enlarged on the farm Rietvley 302 IS during 2014, which directly resulted in the destruction of Site 4 and Site 5. These actions were unsupervised and no explanation was received why this took place. Incidentally, local oral testimony confirmed that the historical house (Site 4) actually predates Site 1 and a Mr Kobus Kotzé (who was apparently very knowledgeable about the local history) resided in the house for several decades.

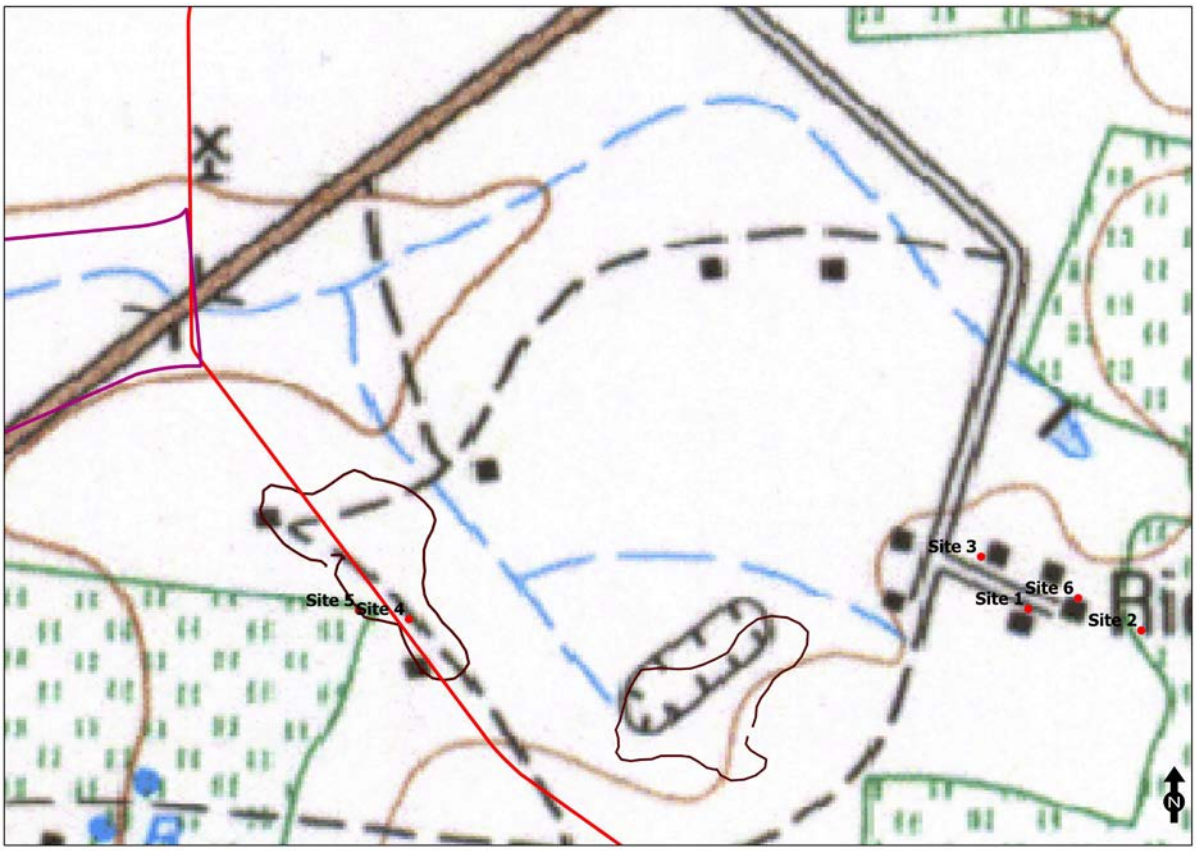

Figure 5: The location and extent of two burrow pits (brown outlines) excavated in 2014

2. Objectives

The project focussed exclusively on Sites 1, 3 and 6.

The terms of reference of the Phase 2 survey are as follows:

- Conduct background and archival research on the farm Rietvley 320 IS
- Mapping and documentation of all the features associated with the sites
- Archaeological excavations at Site 6 (Midden)
- Analyse and record the archaeological material
- Apply for a destruction permit from SAHRA on behalf of the client

3. Study Area

The farm Rietvley 320 IS is situated a few kilometres southwest of Secunda and is situated in Govan Mbeki Local Municipality and Gert Sibande District Municipality in Mpumalanga. According to the Letter of Consent signed by Sasol Synfuels (Pty) Ltd they own the following portions of the farm:

- Portions 3, 8, 9, 10
- Remaining Extent 2

The area is characterised by inactive and active agricultural fields as well as other infrastructure developments associated with farming and mining activities. As a result various tarred and dirt roads, fences, burrow pits, power lines, farm house complexes occur in the

general area. Due to the close proximity of Secunda the region is generally dominated by the existing mining and industrial activities.

The survey area can be described as open grassland with undulating hills and intermittent trees. Agricultural fields dominate the landscape. Veld type is classified as Soweto Highveld Grassland (Mesic Highveld Grassland Bioregion) as part of the Grassland Biome (Mucina & Rutherford 2010).

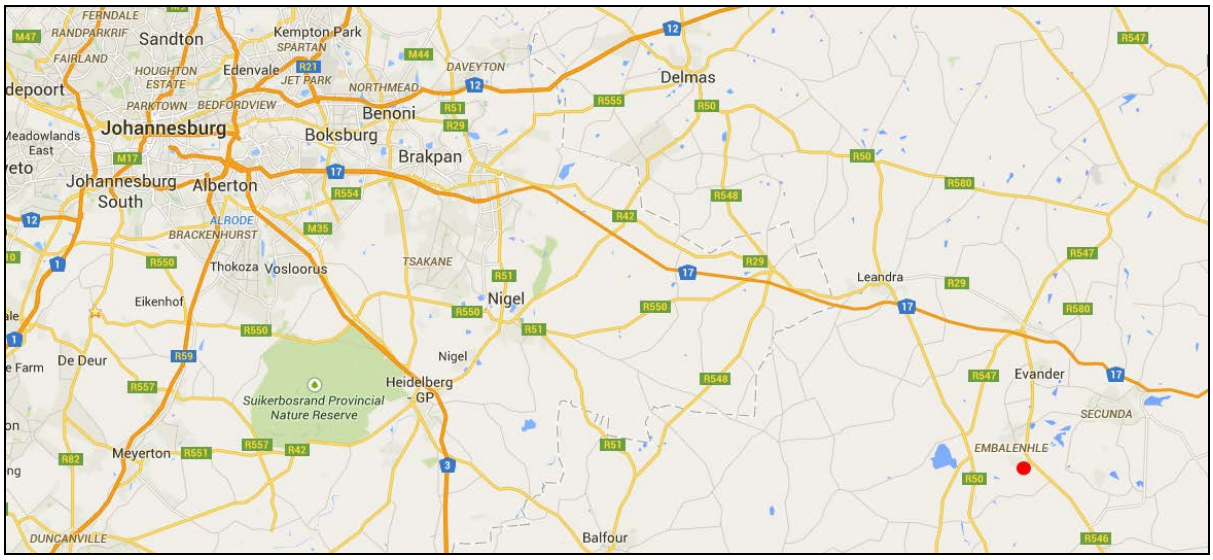

Figure 6: Regional context of the project area (indicated by the red circle)

Figure 7: Local context of the project area (south of Secunda)

Figure 8: Detail location of the project area with relevant sites

Figure 9: Detail view of the Farmhouse Complex which is the focus of the report

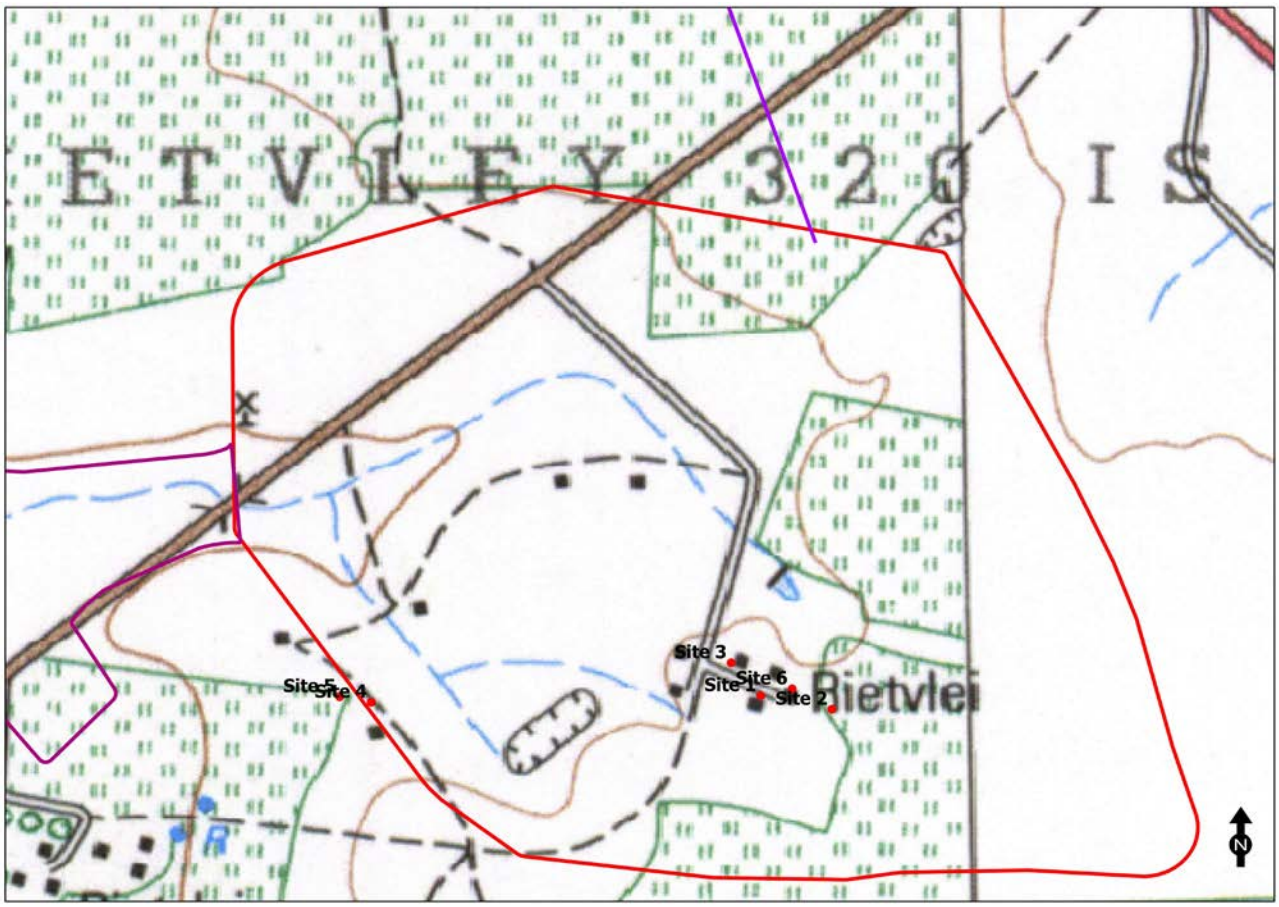

Figure 10: The detail of the project area (FAD 6) as indicated on a 1:50 000 topographic map 2629CA

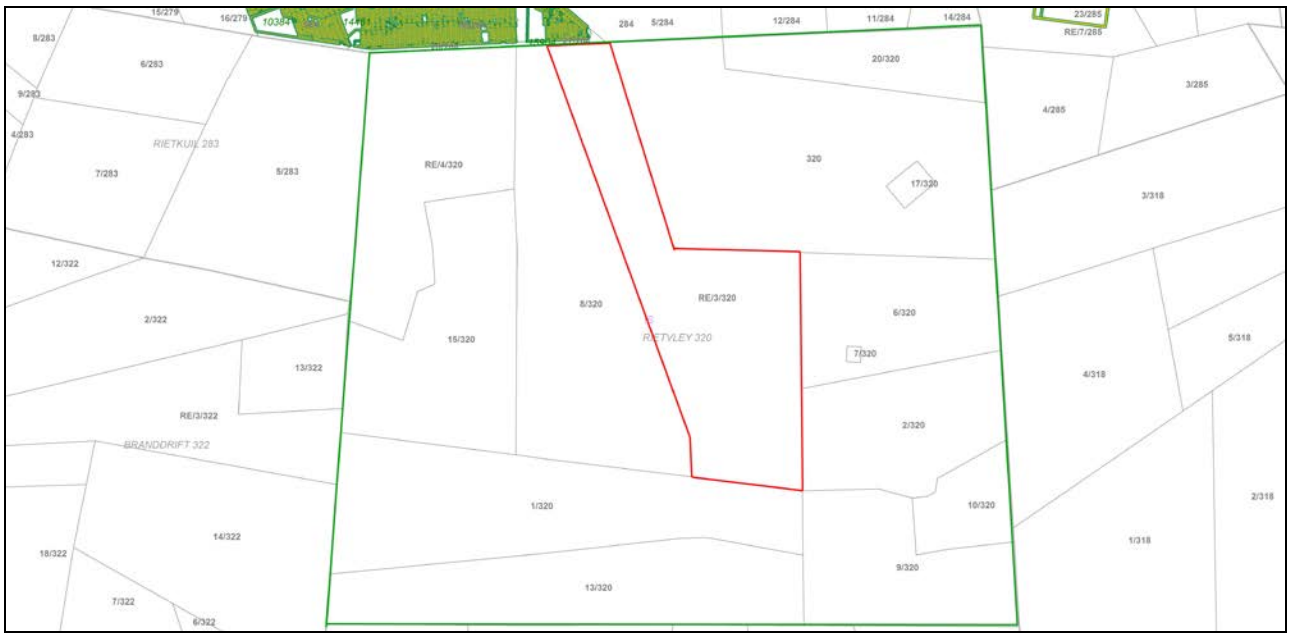

Figure 11: Detail of all the portions of the farm Rietvley 320 IS (the report focusses on Portion 3 as indicated by the red outline)

4. Legal Framework

- Archaeological remains can be defined as human-made objects, which reflect past ways of life, deposited on or in the ground.

- Heritage resources have lasting value in their own right and provide evidence of the origins of South African society and they are valuable, finite, non-renewable and irreplaceable.

- All archaeological remains, features, structures and artefacts older than 100 years and historic structures older than 60 years are protected by the relevant legislation, in this case the **National Heritage Resources Act (NHRA) (Act No. 25 of 1999, Section 34 & 35)**. The Act makes an archaeological impact assessment as part of an EIA and EMPR mandatory (see **Section 38**). No archaeological artefact, assemblage or settlement (site) may be moved or destroyed without the necessary approval from the **South African Heritage Resources Agency (SAHRA)**. Full cognisance is taken of this Act in making recommendations in this report.

- Cognisance will also be taken of the **Mineral and Petroleum Resources Development Act (Act No 28 of 2002)** and the **National Environmental Management Act (Act No 107 of 1998)** when making any recommendations.

- Human remains older than 60 years are protected by the **NHRA**, with reference to **Section 36**. Human remains that are less than 60 years old are protected by the Regulations Relating to the Management of Human Remains (GNR 363 of 22 May 2013) made in terms of the National Health Act No. 61 of 2003 as well as local Ordinances and regulations.

- **Mitigation guidelines (The significance of the site):**

  Rating the significance of the impact on a historical or archaeological site is linked to the significance of the site itself. If the significance of the site is rated high, the significance of the impact will also result in a high rating. The same rule applies if the significance rating of the site is low (also see Table 1).

Significance Rating	Action
Not protected	1. None
Low	2a. Recording and documentation (Phase 1) of site adequate; no further action required
	2b. Controlled sampling (shovel test pits, auguring), mapping and documentation (Phase 2 investigation); permit required for sampling and destruction
Medium	3. Excavation of representative sample, C^{14} dating, mapping and documentation (Phase 2 investigation); permit required for sampling and destruction [including 2a & 2b]
High	4a. Nomination for listing on Heritage Register (National, Provincial or Local) (Phase 2 & 3 investigation); site management plan; permit required if utilised for education or tourism

	4b. Graves: Locate demonstrable descendants through social consulting; obtain permits from applicable legislation, ordinances and regional by-laws; exhumation and reinterment [including 2a, 2b & 3]

Table 2: Rating the significance of sites

- With reference to the evaluation of sites, the certainty of prediction is definite, unless stated otherwise.

- The guidelines as provided by the **NHRA (Act No. 25 of 1999)** in Section 3, with special reference to subsection 3, and the Australian ICOMOS (International Council on Monuments and Sites) Charter (also known as the Burra Charter) are used when determining the cultural significance or other special value of archaeological or historical sites.

- It should be kept in mind that archaeological deposits usually occur below ground level. Should archaeological artefacts or skeletal material be revealed in the area during development activities, such activities should be halted, and a university or museum notified in order for an investigation and evaluation of the find(s) to take place **(*cf*. NHRA (Act No. 25 of 1999)**, Section 36 (6)).

- **Architectural significance:**
  - Does the site contain any important examples of a building type?
  - Are any of the buildings important examples of a style or period?
  - Do any of the buildings contain fine details and or reflect fine workmanship?
  - Are any of the buildings the work of a major architect or builder?
  - Are the buildings important examples of an industrial, technological or engineering development?
  - What is the integrity of the buildings?
  - Are the buildings still utilised?
  - Has the buildings been altered and are these alterations sympathetic to the original intent of the design?

- **Spatial significance of architecture:**
  - Is the site or any of the buildings a landmark in the city or town?
  - Does the plant contribute to the character of the neighbourhood/region?
  - Do the buildings contribute to the character of the street or square?
  - Is the place or building part of an important group of buildings?

- **Architecture: Levels of significance are**:
  - Protect
  - Highly significant
  - Possible significance
  - Least significance
  - No significance

- **Architecture: Levels of protection** are:

Retain and protect	Considered to be of high significance. The building or structure can be used as part of the development but must be suitably protected. Should not include major structural alterations. If the building is older than 60 years a modification permit is required from SAHRA.
Retain and re-use	Considered to be of moderate significance. The building or structure can be altered to be accommodated within the development plans. Structural alterations can be included. If the building is older than 60 years a modification permit is required from SAHRA.
Alter and re-use	Considered to be of low significance. The building or structure can be structurally altered or destruction can be considered following further documentation. If the building is older than 60 years a modification/destruction permit is required from SAHRA.
Can be demolished	Considered to be of negligible significance and can be demolished. If the building is older than 60 years a destruction permit is required from SAHRA.

Table 3: Level of protection of buildings/structures

- A copy of this report will be lodged with the **SAHRA** as stipulated by the National Heritage Resources Act (NHRA) (Act No. 25 of 1999), Section 38 (especially subsection 4) and the relevant Provincial Heritage Resources Authority (PHRA).

- Note that the final decision for the approval of permits, or the removal or destruction of sites, structures and artefacts identified in this report, rests with the SAHRA (or relevant PHRA).

6. Impact assessment

The criteria used to describe heritage resources and to provide a significance rating of recorded sites are listed in the NHRA (Act No. 25 of 1999) specifically Section 7(7) and Section 38. SAHRA also published various regulations including: Minimum standards: Archaeological and palaeontological components of impact assessment reports in 2006 and updated requirements in 2012.

7. Assumptions, restrictions and gaps in knowledge

No severe physical restrictions were encountered as access to the farmhouse complex was granted by Sasol Synfuels and the site was therefore not restricted. However, please note that due to the subterranean nature of cultural remains this report should not be construed as a record of all archaeological and historic sites in the area.

8. Study Approach/Fieldwork Methods

In compliance with the recommendations of a Phase I Cultural Heritage Survey conducted across the area demarcated for the development of a Sasol Fine Ash Dam (Rietvley Farm 320 IS, Secunda, Mpumalanga) (Coetzee 2011) a Phase II archaeological investigation was undertaken at the historical farmstead designated as Sites 1, 3 and 6 (Coetzee 2011:25-27). The archaeological site comprises a multi-roomed structure (Site 1), constructed during

several phases of building and over a number of years, and a large ash midden (domestic rubbish dump) (Site 6) located at the back (north eastern side) of the dwelling. The house was recorded by measured plan drawings, elevations and a detailed photographic inventory was complied. The midden was systematically tested, sampled and recorded using conventional archaeological fieldwork techniques and procedures. The site and all excavations were surveyed using a Digital Total Station (DTM).

Regional maps and other geographical information (ESRI shapefiles) were supplied by SRK Consulting. In addition Google images and topographic maps were used to indicate the survey area. The survey area was localised on the 1:50 000 topographic map 2629CA. Please note that all maps are orientated with north facing upwards (unless stated otherwise).

Several site visits were conducted to the site in 2014 to document, survey and photograph the main Farmhouse Complex (Sites 1, 3 and 6). The local library in Secunda was also visited to obtain any historical information of the region. Local oral testimonies (Mr Chris Steyn: Personal Communication, 4/11/2014 & Mr Jan-Jan Steyn: Personal Communication, 5/11/2014) were also used to elucidate some chronological aspects of the settlement history of the farm. Title Deeds were accessed through WinDeed (www.windeed.org.za).

After submitting the permit application and all the required documentation for the archaeological excavations at Site 6, SAHRA granted the excavation permit (Permit ID: 1926, Case ID: 5690, SAHRA Ref: 9/2/227/0006) on 9 October 2014.

The excavations were conducted between 3 and 7 November 2014 and the excavation team consisted of the following people (see Coetzee 2015b):

- Joanna Behrens (Principle Investigator)
- Francois Coetzee (Project Manager)
- Debbie Palk (Documentation/assistant)
- Heidi Fivaz (Assistant)
- Vanessa Munyembane (Assistant)

9. Archival and Historical Research

Additional information on the cultural heritage of the area was sourced from the following records:

- National Mapping Project by SAHRA (which lists heritage impact assessment reports submitted for South Africa)
- Online SAHRIS database
- Maps and information documents supplied by the client
- Documents in the Secunda Library
- WinDeed (Online Title Deed access)

The Farm Rietvley 320 IS

The Surveyor General's database shows that the farm Rietvley 320 IS was first surveyed in 1898. However, a Deed of Grant was already in place by 1869 as the farm was owned by JF Rossouw. Furthermore, the Surveyor General's diagram clearly shows some structures on the farm by 1898. Usually farmers who first occupy a new farm construct a temporary house while building of the new main farmhouse takes place. This seems to be the case as the recorded farmhouse (Site 1) probably dates to the late 19th century (possibly even early 20th

century). The farm was probably mostly used for farming activities (agricultural fields and pastures), an assumption that is strongly substantiated by the 1980s topographic map. The farm was therefore probably extensively farmed for well over a century.

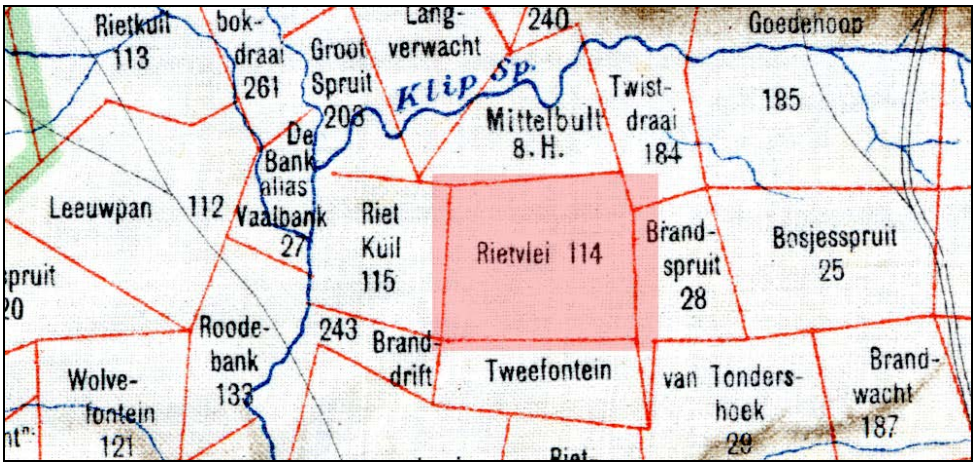

Figure 12: Fred Jeppe's Map of the relevant farm in 1899, indicating the original farm Rietvlei 114 (Rietvley 320 IS)

Due to the fact that Sites 1, 3 and 6 are situated on Portion 3 of the farm the following settlement history only pertains to this portion. According to the Surveyor General's surveying diagrams extensive re-surveying of the area took place between 1908 and 1909. During this period the farm as a whole was subdivided for the first time. Coincidentally, it seems that after the division Portion 3 of the farm was transferred from the first owner, Rossouw to James Stephanus Whiteman in 1909 (T158/1909) who also assisted the surveyors during another spell of subdivision in 1916. It seems, therefore, that Whiteman eventually became the owner of Portion 3. He married Katrina Viljoen and they had two sons namely Willem (Willie) Johannes Whiteman and Manie Whiteman. Manie Whiteman became a teacher and did not reside on the farm. Willem (Willie) Whiteman, however, married and lived on the farm with his father. According to the Title Deed Willem Whiteman became the legal owner of the farm in 1974 (T6851/1974). It, therefore, seems that the Whiteman family was the last farmers to own the land before it was purchased by Sasol Synfuels in 2003 (T143990/2003).

This settlement sequence of Portion 3 is important as it will be used to substantiate the interpretation of a three phase occupation of the main farmhouse (Site 1) and the nature of the midden (Site 6).

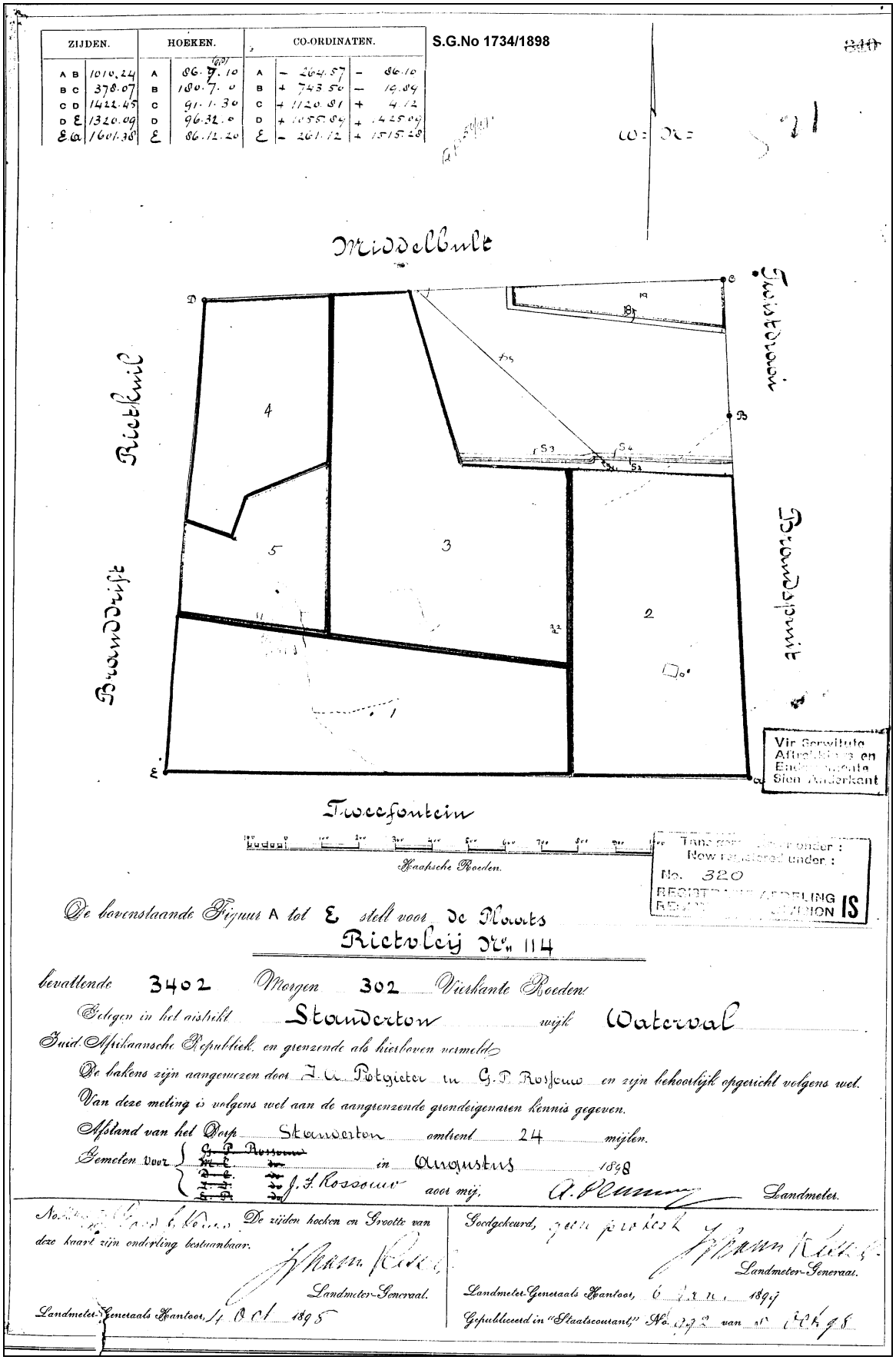

Figure 13: The Surveyor General's diagram of the farm Rietvley 320 IS which was first surveyed in 1898

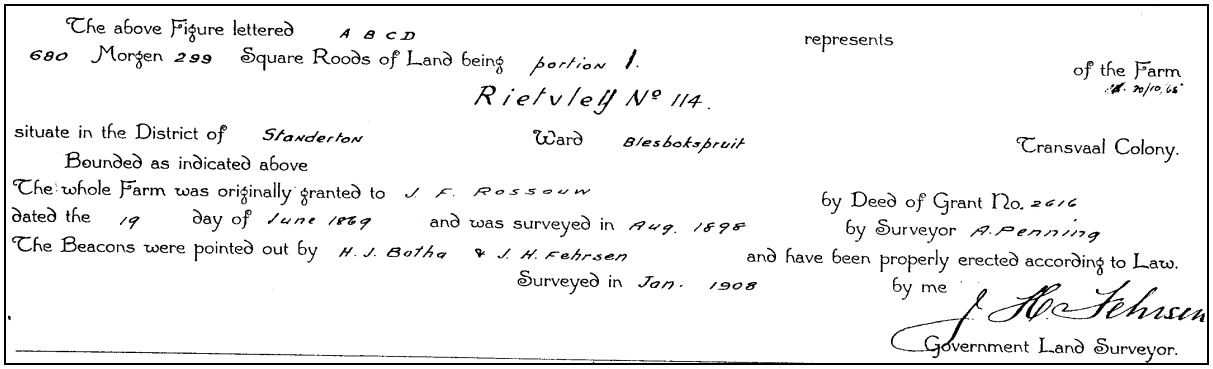
The above Figure lettered A B C D represents
680 Morgen 299 Square Roods of Land being portion 1. of the Farm
Rietvlei Nº 114.
situate in the District of Standerton Ward Blesbokspruit Transvaal Colony.
Bounded as indicated above
The whole Farm was originally granted to J. F. Rossouw by Deed of Grant No. 2616
dated the 19 day of June 1869 and was surveyed in Aug. 1898 by Surveyor A. Penning
The Beacons were pointed out by H. J. Botha & J. H. Fehrsen and have been properly erected according to Law.
Surveyed in Jan. 1908 by me
J. H. Fehrsen
Government Land Surveyor.

Figure 14: Another Surveyor General's diagram clearly indicates that the farm was first granted to JF Rossouw on 19 June 1869

Chronology	Historical events: Rietvley 320 IS (Rietvlei 114)
19 June 1869	Deed of Grant No. 2616 originally granted to Mr JF Rossouw
August 1898	The farm was first surveyed by the Surveyor General
1899	Published as part of Fred Jeppe's map of South Africa
Jan 1908 – Jan 1909	The farm was subdivided into various portions for the first time Portion 3 as remaining extent was surveyed (T158/1909)
October 1916	Mr. James Stephanus Whiteman was working on the farm and indicated boundary markers on the farm to the surveyor
1974	Mr. James Stephanus Whiteman is still the registered owner of Portion 3 (K2756/1974) and probably purchased it directly from Mr. Rossouw in the 1920s
1974	Mr. Willem Johannes Whiteman is indicated as the new owner (T6851/1974)
2003	Portion 3 is purchased by Sasol Synfuels Pty Ltd (T143990/2003)

Table 4: Chronological framework of Portion 3 of the farm Rietvley 320 IS

Trichardt

Trichardt is the nearest and oldest town in the area. To understand the general history and development of the farm Rietvley the larger historical context of the region must be recognised. Trichardt is located on a farm originally named Vaalkrans, which was renamed Trichardtsfontein, after Carolus Johannes Trichardt, the son of the famous *Voortrekker* Louis Trichardt. Carolus Trichardt lived on the farm Goede Hoop which was situated adjacent to Trichardtsfontein (Trichardt - Goue Jubileum, n.d.: 10).

Figure 15: Carolus Johannes Trichardt (1811 – 1901)

On 22 November 1879 the first children were baptised in the Reformed Church with the first Minister, Ds NJ van Warmelo. After obtaining a stand for the proposed church on 11 March 1882, the church building was completed on 1 December 1884 and situated on the farm Trichardtsfontein. The first school was also situated on the farm and was opened before 1889. After the Anglo-Boer War (1899 – 1902) the school reopened in 1904/5 on Erf No. 403 in the new town (Highveld Ridge 1997).

The first official erven at Trichardtsfontein were sold from 28 April 1906 to 28 April 1907 which eventually became the town Trichardt. The proclamation of the town is recorded as 1906 and the town quickly became the agricultural hub of the region providing equipment, feed, seeds, etc. to the prospering farming community.

Figure 16: The first Reformed Church at Trichardt (note dressed sandstone walls)

Of interest is the 'Freestone Quarries' that are mentioned in some of the archival documents. Apparently large sandstone quarries were started near the town to facilitate the basic building material for churches, schools and other official buildings (e.g. Police Station). After the

completion of these structures high quality sandstone was available for free to new stand and farm owners that needed material to build their houses. This could have been the source of the light brown sandstone that was used in the construction of the farmhouse (Site 1) and livestock enclosure (Site 3) at Rietvley (Library document. n.d.).

10. Description of Farmhouse Complex

The Farmhouse Complex comprises several structures of which the main farmhouse (Site 1) is interpreted as central. Associated with the farmhouse the following features were recorded:

- Remnants of the garden in front (west) of the house (prickly pear trees, Karee trees (*Rhus lancea*), Bluegum trees (*Eucalyptus saligna*) and various small *Aloe* species);
- Cement pathway leading from the front door into the front garden (western front)
- Power line and transformer (a recent addition);
- Septic tank (underground cement-lined chambers) to the north of the house;
- Borehole at the back (eastern front) of the house, indicated by a cement base (was probably driven by an old Lister engine;
- Fence posts and access roads;
- Livestock enclosure (Site 3) with two separate enclosed spaces that were probably used as sheds; and
- Main household midden (rubbish heap) (Site 6) located to the north-east of the house.

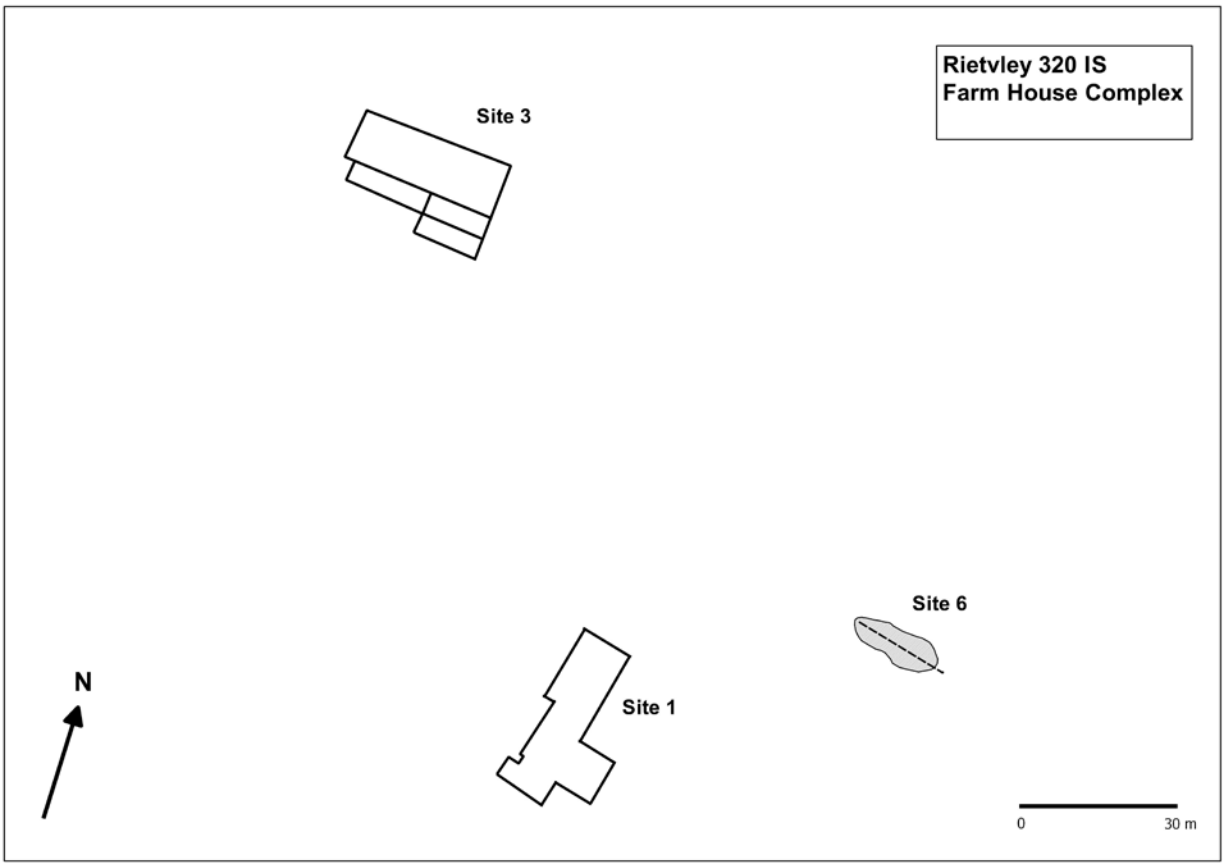

Figure 17: The main Farmhouse Complex on Portion 3 of the farm Rietvley 320 IS

10.1 Main Farmhouse (Site 1)

The main structure comprises a large multi-room and multi-facetted farmhouse of which the original section has been extensively extended over several decades. The original portion of the farmhouse is facing north-west, with the rear facing south-east. This orientation is atypical as it does not conform to the normal (frontal) facing regime used in either the southern (houses usually face north) of northern (houses usually face south) hemisphere.

Using a chronological framework derived from the Title Deeds, the known settlement history of Portion 3 of the farm and the on-site architectural documentation, the farmhouse is divided into three main phases:

- Phase 1: Is represented by the rectangular enclosure at the northern end of the house. The outside walling of this section is exclusively constructed with dressed light-brown sandstone (quoining) and dressed black granite blocks. Chronologically this is the first and oldest section.
- Phase 2: The additions constructed on the south-western face of Phase 1. The type of sandstone and building technique (no quoining) used in the construction seem to differ in this section and is therefore subdivided into a Phase 2A and Phase 2B. It would seem that the Phase 2A expansion took place first but was later altered and even further extended by Phase 2B.
- Phase 3: Further alterations and expansions to the main house. All these additions were constructed using fired clay bricks. This phase is, however, also subdivided and consists of a Phase 3A (double brick walls, earlier) and a Phase 3B (single brick walls, later).

It should be noted that all Phase 1 and Phase 2 construction was done using the Imperial measuring system (1 inch = 2.54 cm; 12 inches = 1 foot). However, all on-site measurements during fieldwork were recorded in the Metric system. As such, some of the recorded measurements are in decimals but later rounded off for practical reasons.

Phase 1

The rectangular structure is roughly 8 m x 11 m in extent and is characterised by prominent masonry on the outside. Quoining of the dressed sandstone is extensively used at the corners and around all windows and doors. This is contrasted by using black dressed granite blocks for the rest of the outside walling. Large dressed blocks are often used for quoining and are arranged so as to form a decorative contrast with the adjoining walls. The house foundation is also constructed of dressed sandstone, including the surrounding verandah (situated on both the northern and western side). The walls are roughly 0.5 metres thick with smaller dressed stones on the inside which were covered with plaster. The subdividing walls (200 mm – 250 mm) on the inside of the house were built with sundried mud bricks and also covered with plaster. All the inside walls of the house were painted white. No wooden roof trusses survived but the roof was probably covered with corrugated iron sheets.

The flooring probably consisted of wooden floorboards but they have been removed after the house was abandoned.

Figure 18: Front façade of the farmhouse (Phase 1) with a detail indicating quoining around a window

Figure 19: Quoining on the front corner (left) and a section of a sundried mud brick wall inside the house (note white plaster) (right)

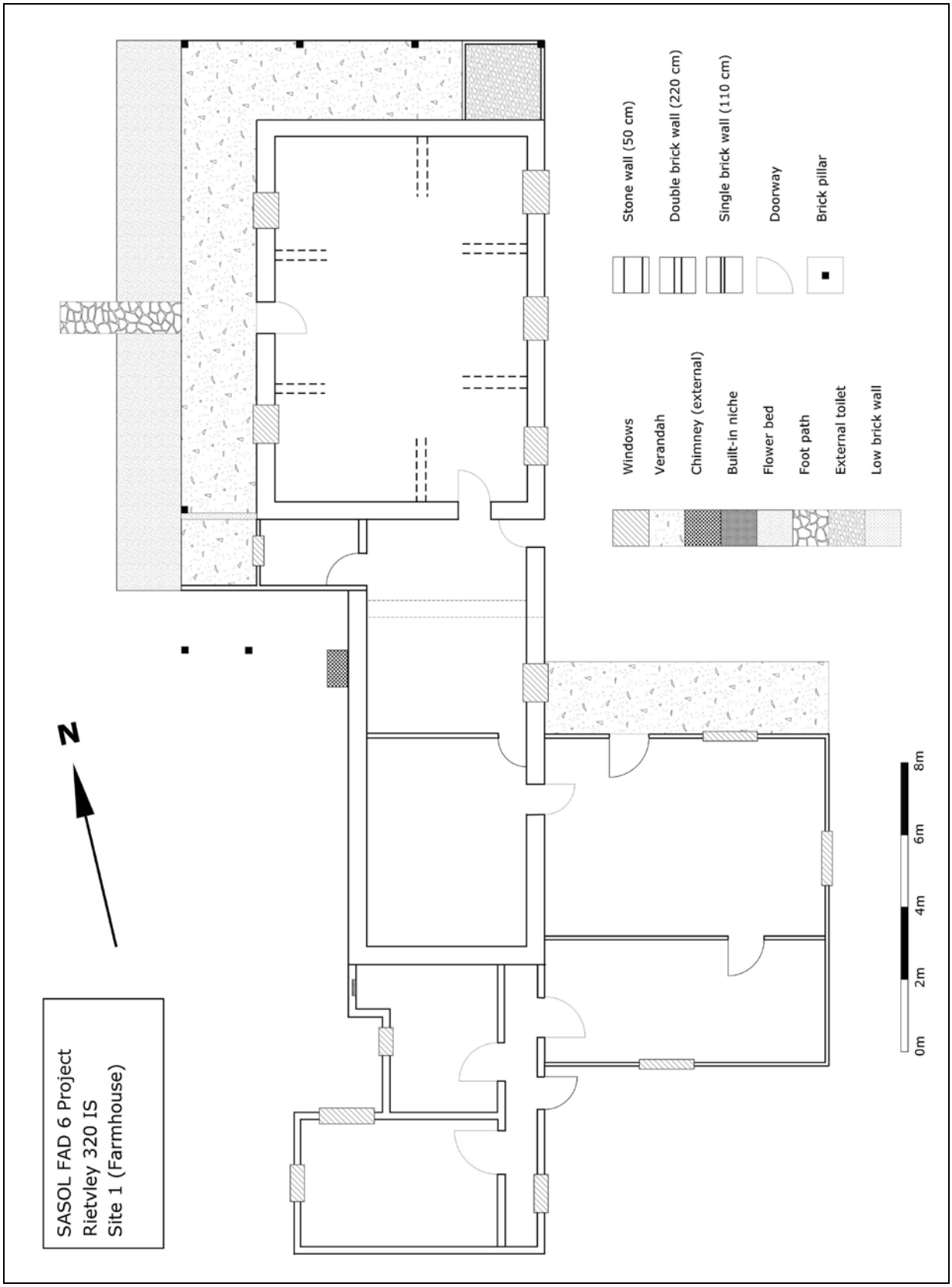

Figure 20: Foundation layout of the farmhouse (Site 1)

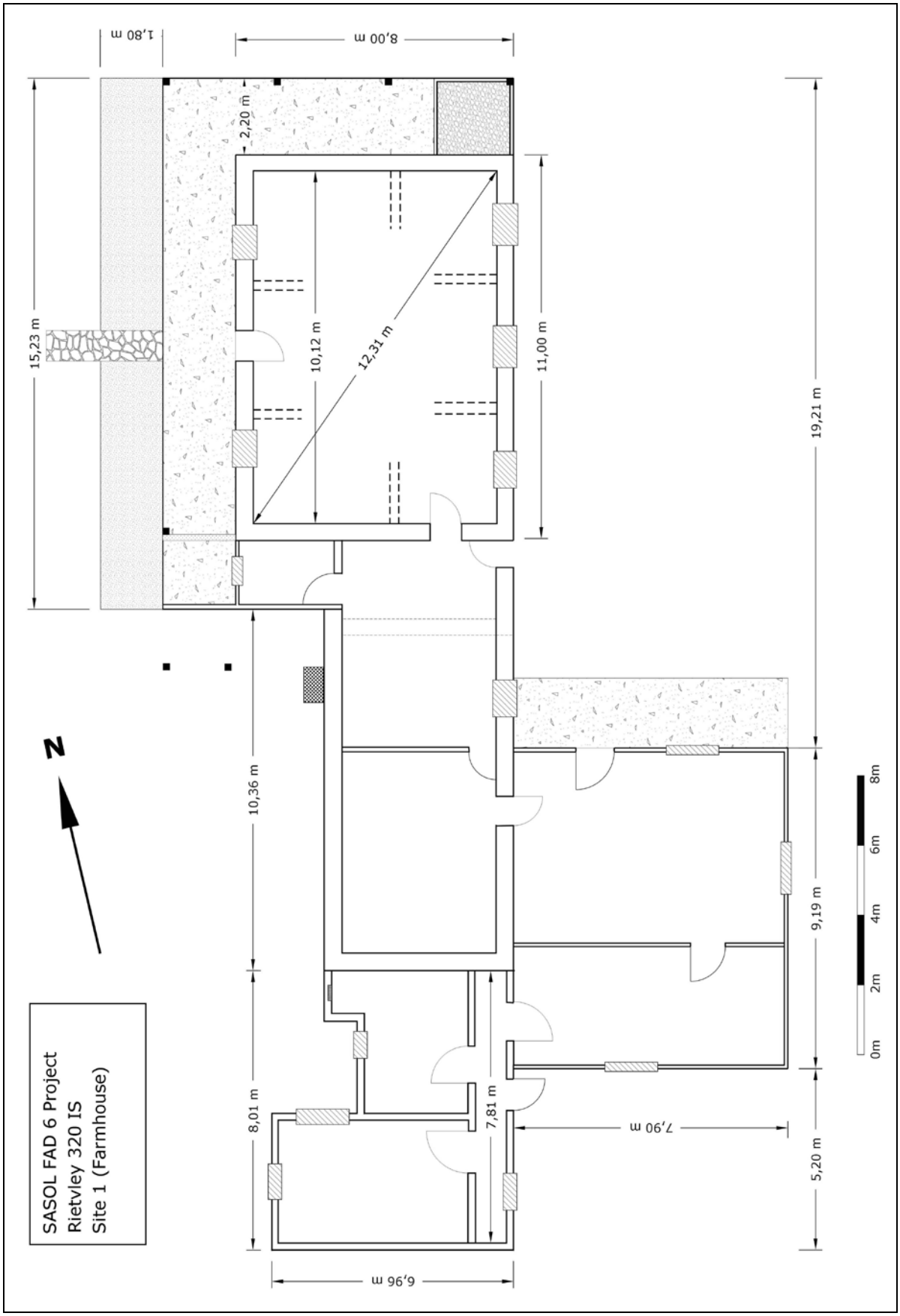

Figure 21: Layout of farmhouse with measurements

Figure 22: Postulated phases of alterations and additions

Due to the Phase 2 additions two significant alterations were made to the Phase 1 section of the house. To facilitate access to the new addition a window on the southern side was

converted into a doorway. As a result the original back door on the eastern façade was not needed anymore as it was subsequently converted into a window.

Figure 23: The original back door on the eastern facade of the house was converted into a window (left) and the window on the southern side of the house was converted into a doorway

Phase 2

Phase 2 is also constructed with dressed sandstone but the technique and type of stone differ markedly from Phase 1. Also no quoining was used in the construction of the Phase 2 section. The specific purpose of this addition is unclear but the obvious goal was to enlarge the living space. It seems that the first small addition (Phase 2A) was changed and extended some time later (Phase 2B) and the interconnecting internal wall (south facing) was removed. Another possibility is, however, that Phase 2B was built as a stand-alone structure (house) next to the Phase 1 section and that the Phase 2A was constructed to link the two and therefore effectively create one dwelling. Also the outside wall of Phase 2A (eastern face) seems to span the difference in height between Phase 1 and Phase 2B therefore making it possible to interconnect the roof trusses to integrate the roof sheeting. A cement floor was recorded for both Phase 2A and 2B, but could have been added later.

Also note that it seems probable that the addition of the verandah on the northern and western side of the Phase 1 section took place during the Phase 2 construction period. This probably only consisted of the floor, as the pillars and small sections of walling came later.

Figure 24: Phase 2 (A & B) is clearly visible on the south facade of the Phase 1 section of the house

Phase 3

Phase 3 represents the last and most recent changes and additions to the farmhouse. Phase 3A consists of two rooms linked to a single elongated passage through several access doors. Both the internal and external walls of Phase 3A are double (220 mm) and constructed with fired clay bricks. Both the outside and inside walling are plastered and painted white. The rooms and passage have cement floors which were covered with square plastic adhesive tiles. Pieces of asbestos corrugated sheeting were recorded inside the rooms which would seem to confirm that this material was used for the roof, probably for both Phase 3A and 3B.
The pillars (clay bricks with rounded edges) along the verandah attached to the Phase 1 structure were probably added during this period.

Figure 25: The white plastered walls of Phase 3A and cement floor of one of the rooms

Figure 26: The rounded edges of clay bricks used for the pillars and the addition of an outside toilet on the verandah (Phase 3B type clay bricks)

Phase 3B is then the latest stage and is clearly indicated with single (110 mm) walling built with fired clay bricks. The bricks used for the construction of this phase are very distinctive and are associated with several changes namely, the addition of two large rooms on the eastern side of Phase 3A and Phase 2B, an addition (pantry) to the west of Phase 2A and an outside toilet added to the verandah north of Phase 1. Note also that Phase 3B structures are only plastered on the inside leaving a face-brick surface on the outside. The main section also has a cement floor (south of Phase 3A). A verandah was also added to the north of Phase 3B. An external chimney was also added during either Phase 3A or 3B on the western wall of Phase 2A/2B.

Figure 27: Outside wall of the main Phase 3B room; the external brick chimney added to the west-facing stone wall of Phase 2A/2B

Other features

Although some trees and prickly pear lanes are still visible in front (west) of the farmhouse, none of the garden remains. No vegetable gardens or any small animal (chicken) coops were noted. A sub-surface cement and brick lined septic tank was recorded approximately 8 metres north of the external toilet (situated on the verandah). The sceptic tank (2 m x 1 m) consists of two equally sized chambers. The main borehole is situated just outside the back (eastern) door located in the Phase 2A section.

Figure 28: The remains of one of the tree lanes and the septic tank north of the house

Figure 29: The borehole situated on the eastern side of the house; examples of the bricks that were probably used in Phase 3B

10.2 Stone Livestock Enclosure (Site 3)

The site consists mainly of a cattle enclosure with three attached outbuildings of which two were probably used as sheds (2 adjacent areas) and one as a possible additional storage space. The structure is square by design and is constructed with both rough and dressed sandstone blocks. The sandstone used in the construction seems very similar to that of the main farmhouse (Site 1) and probably came from the same sandstone quarry situated near Trichardt. A large stone monolith was planted at the entrance to the main kraal enclosure. The monolith stabilises the end of the stonewall and also supports the iron pole attached to the entrance (iron) gate. However, the walling has mostly collapsed, with some sections still up to 1 metre in height. The complete structure is approximately 30 m x 21 m in extent and is situated about 90 metres north-west of the main farmhouse.

Taking cognisance of the type and colour of the sandstone used and the skill evident in some of the dressed blocks, the structure can probably be dated to the same period as Phase 1 or Phase 2A of the main farmhouse (Site 1). Note that no excavations were undertaken at this site.

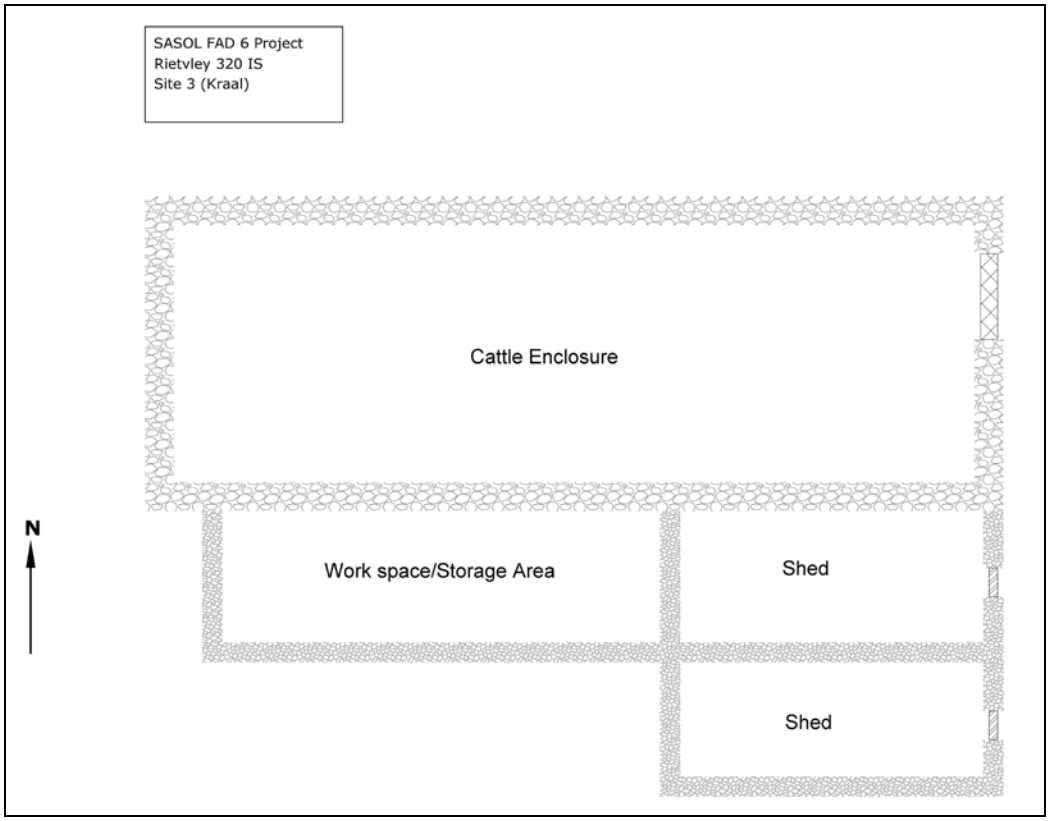

Figure 30: The layout of the main cattle enclosure with two sheds and a work space

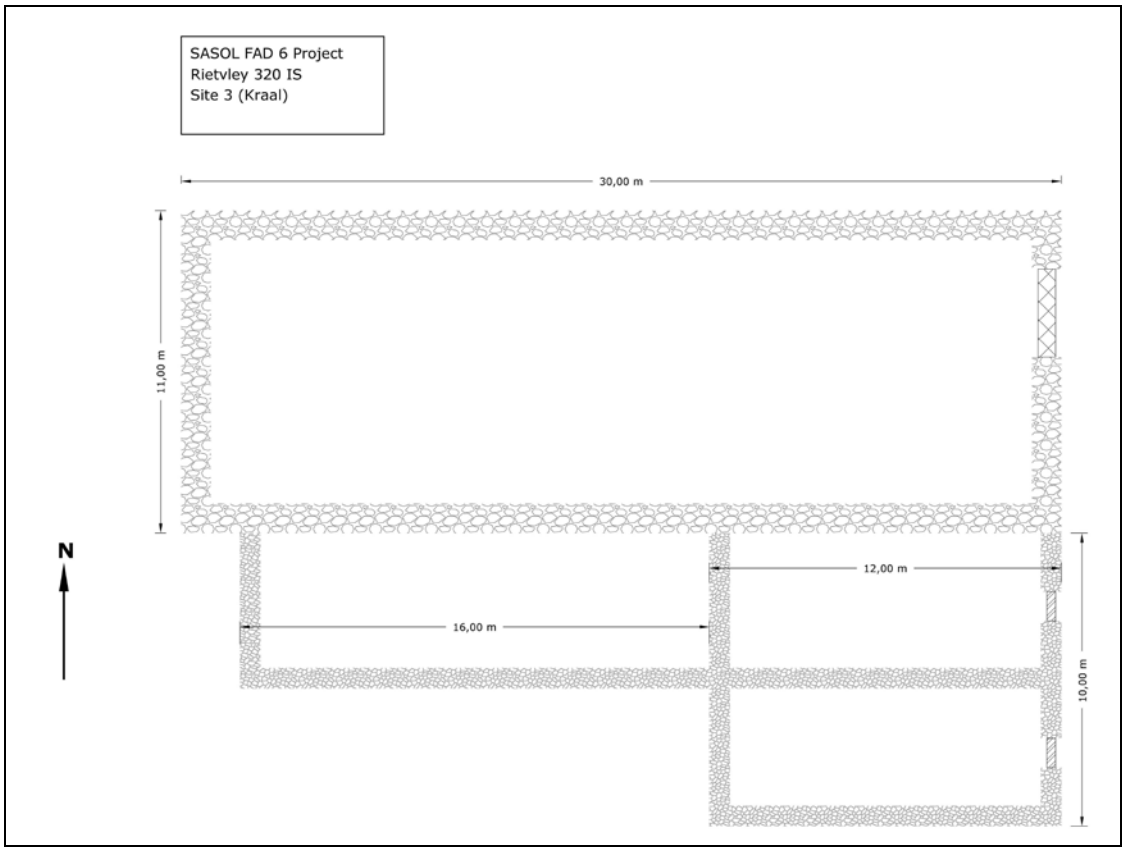

Figure 31: The measurements of the individual enclosures

Figure 32: View of the entrance to the main cattle enclosure (left) and a section of the shed wall (right)

10.3 Midden (domestic rubbish dump) (Site 6)

Located at the rear (north-eastern side) of the main house the Midden was identified during preliminary survey work (Phase 1) as a grass covered mound, roughly rectangular in shape (measuring c.20 metres x c.3 metres) and with a scatter of artefacts (glass, ceramic and bone flakes) visible at the surface. Between the completion of the Phase I archaeological survey in August 2011 and the commencement of Phase II archaeological investigations in September – November 2014 the area around the midden was expediently fenced for use as a cattle enclosure. The result was the destruction of the protective grass cover and the trampling and disturbance of the midden's surface deposits by cattle, corralled from dusk to dawn. This affectively compressed the deposit and caused some bioturbation of the upper levels.

Figure 33: The Rietvley Midden as recorded in August 2011

Figure 34: The Midden during November 2014 after the erection of a cattle enclosure

The archaeological mitigation of the midden was undertaken to meet two primary objectives: to determine the depth of the midden deposit and to obtain a representative sample of cultural material that would sanction the issue of a destruction permit by the South African Heritage Resources Agency. Accordingly, a datum (base) line of 18.7 m was laid out along the vertical axis of the midden (125˚ from magnetic north) running from north-north-west (0 m) to east-south-east (18.7 m).

Auger Samples

A total of seven auger tests were conducted along the datum line (Auger Tests 1-7) and two additional auger tests were placed at 90˚ to the datum line and Auger Test 5 (Auger Tests 8 and 9). These auger tests provided a preliminary indication of the depth and nature of the archaeological deposit and facilitated decisions about where to place the excavation units (McManamon 1984; Nance & Ball 1986). A summary of the information is provided below.

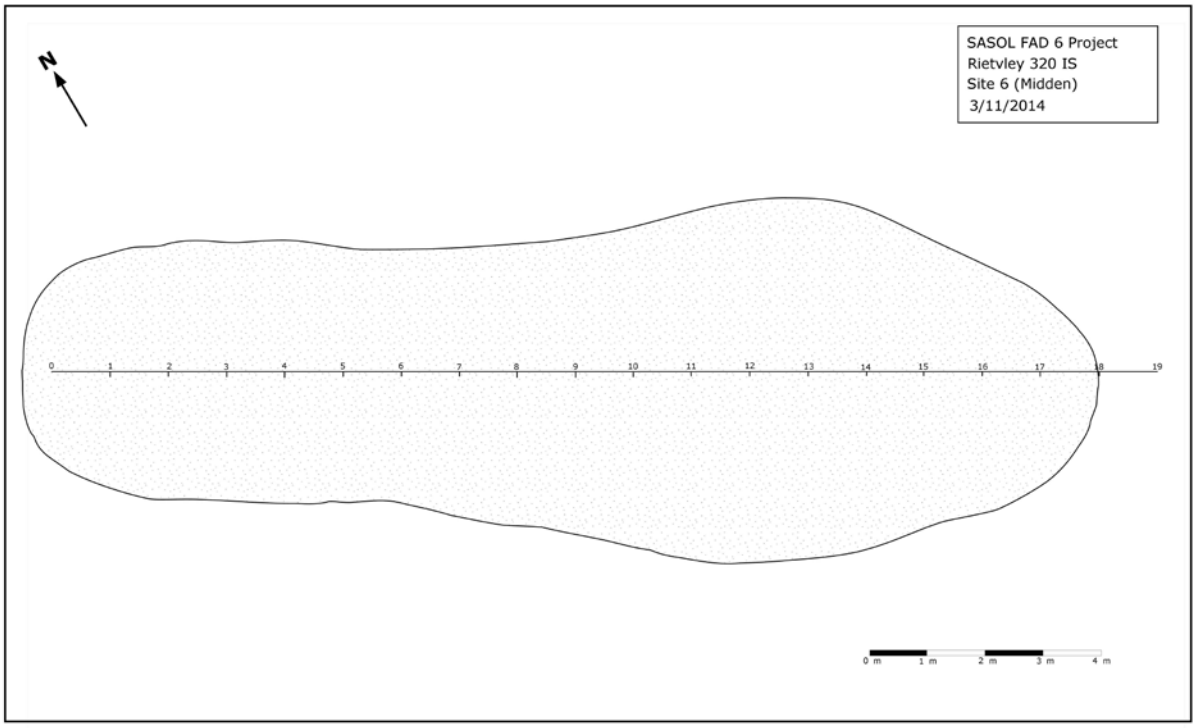

Figure 35: The Datum Line (baseline) measured in over the midden

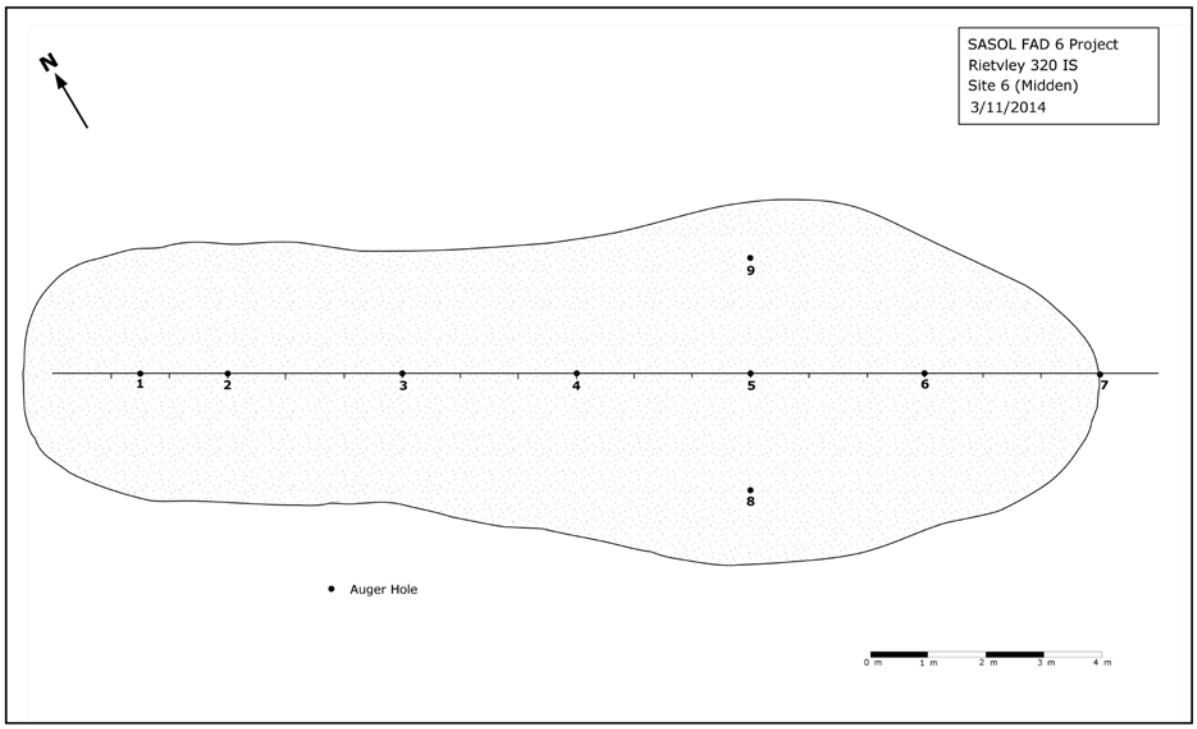

Figure 36: The position of the auger holes from which samples were recorded

Figure 37: Auger samples being taken along the Datum Line

The deposit in all but one of the auger tests (AT 7) comprised cinder and ash (the residue from coal and wood burning ranges) with a base deposit of sterile brown clay. The auger test samples were sieved using a 1 mm mesh and sorted. Soil samples were taken from AT 2 and AT 5. The density of cultural material was uniformly low (see Table below) but appeared greatest in the middle sections of the midden.

Using the results from the auger test survey an excavation grid was laid out over the midden and three 1 m x 1 m squares were excavated (M21, M22 and L14-15). Squares M21 and M22 were excavated using an arbitrary control of 100 mm (Levels 1-5). Square L14-15 contained considerably less cultural material than squares M21 and M22 and was excavated in three controlled 100 mm levels (Levels 1-3) with Level 4 excavated in the north-east corner of the square. The deposit in all squares was ashy with high concentrations of cinder. All relevant excavation data were recorded on context sheets (Appendix J) and in the site notebook. A complete photographic record was kept for all stages of the excavation. A total of 142.5 buckets of deposit was excavated. All excavated deposit was sieved using a 1 mm mesh.

AUGER TEST	COMMENTS
AT 1 (1.5 m)	depth: 0.55m deposit: cinder and ash
AT 2 (3 m)	depth: 0.45 m deposit: cinder and ash soil sample: dark grey (munsell: 2.5Y 4/1) artefacts : metal
AT 3 (6 m)	depth: 0.46 m deposit: cinder and ash artefacts: fauna
AT 4 (9 m)	depth: 0.44 m deposit: cinder and ash artefacts: metal and fauna
AT 5 (12 m)	depth: 0.52 m deposit: cinder and ash

	soil sample: grey (munsell: 10YR 5/1) artefacts: ceramic, glass, bone, metal, shell, charcoal and fauna
AT 6 (15 m)	depth: 0.53 m deposit: cinder and ash artefacts: fauna
AT 7 (18m)	depth: 0.17 m deposit: brown loam (no ash) artefacts: fauna
AT 8 (90˚ south of AT 5)	depth: 0.45 m deposit: cinder and ash artefacts: fauna
AT 9 (90˚ north of AT 5)	depth: 0.31 m deposit: cinder and ash artefacts: fauna

Table 5: Rietvley Auger Test Survey Summary

Excavations

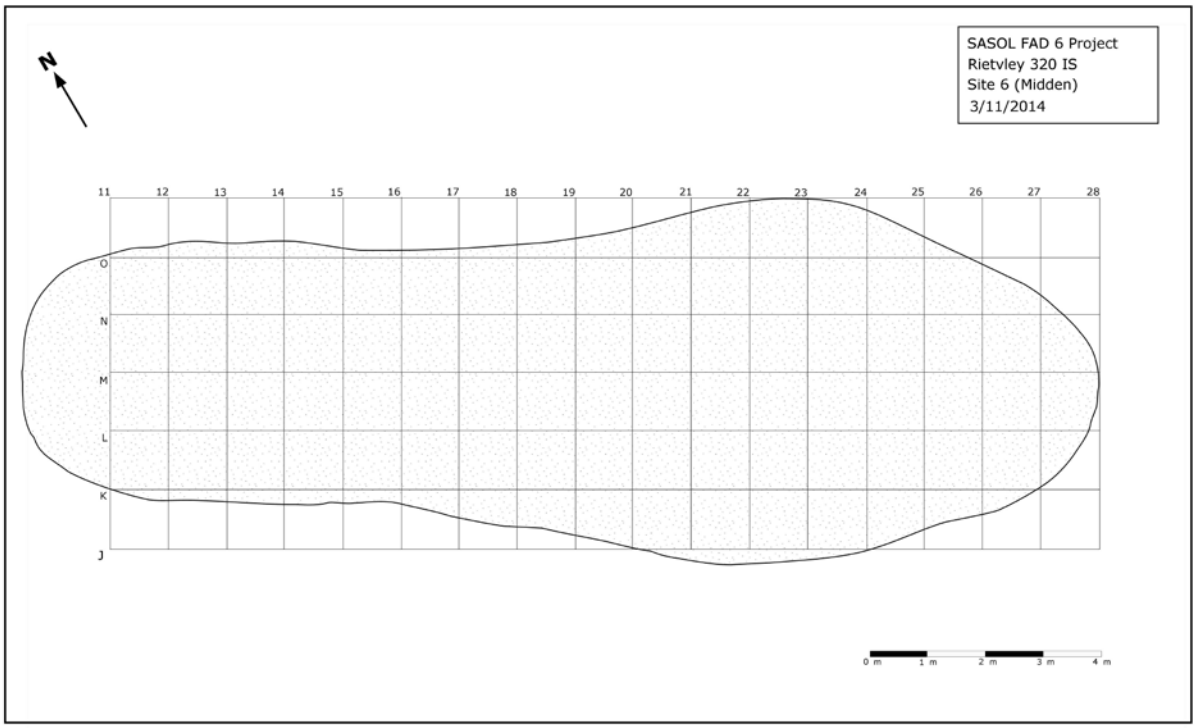

Figure 38: The grid that was measured out over the midden for documentation purposes

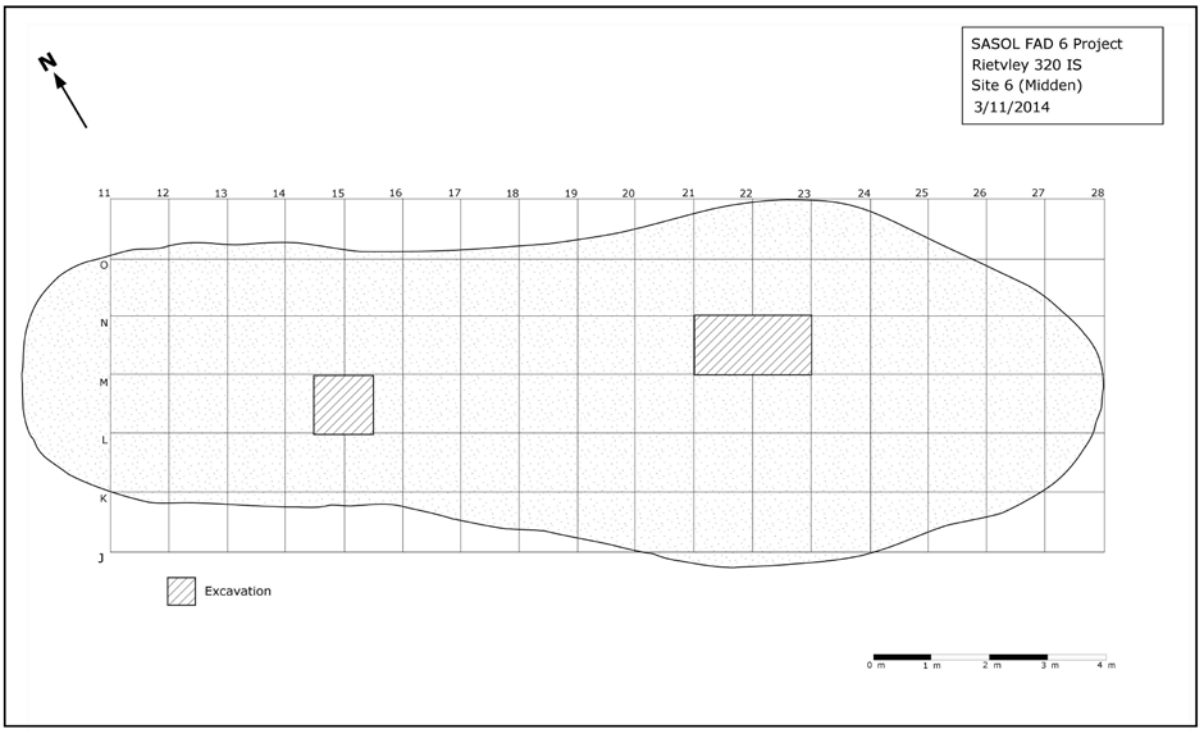

Figure 39: Location of the excavations M21, M22 and L14/15

EXCAVATED SOIL SAMPLES PROVENIENCE	EXCAVATED SOIL SAMPLES MUNSELL
M21/1 (south-east corner)	grey 2.5Y 5/1
M21/1	grey 10YR 5/1
M21/2	dark grey 10YR 4/1
M21/3	dark grey 5Y 4/1
M21/4	very dark greyish-brown 2.5Y 3/2
M21/5	dark greyish-brown 10YR 4/1

Table 6: Rietvley Soil Sample Summary: All Levels

Excavation M21

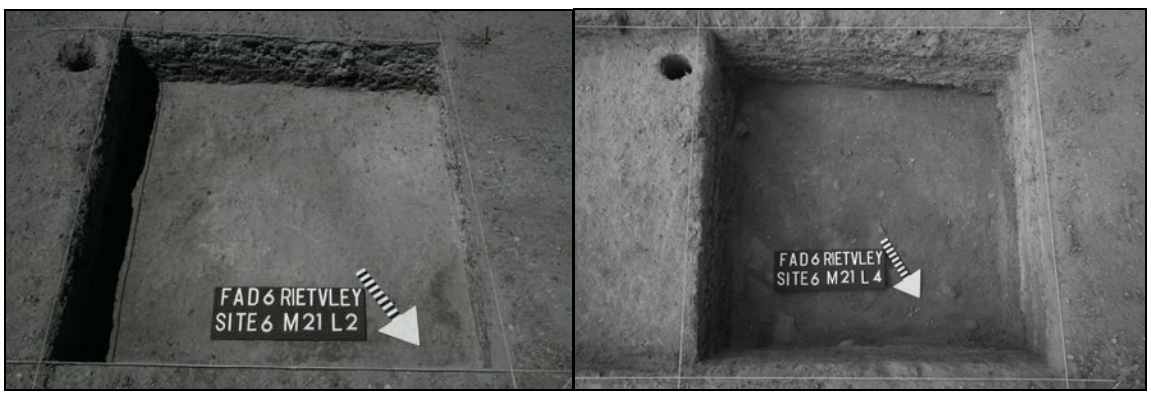

Figure 40: Square M21 excavated at Level 2 and Level 4

Figure 41: Square M21 at Level 5 (southern and western profile)

Excavation M22

Figure 42: Excavation M22 on Level 1 and Level 3

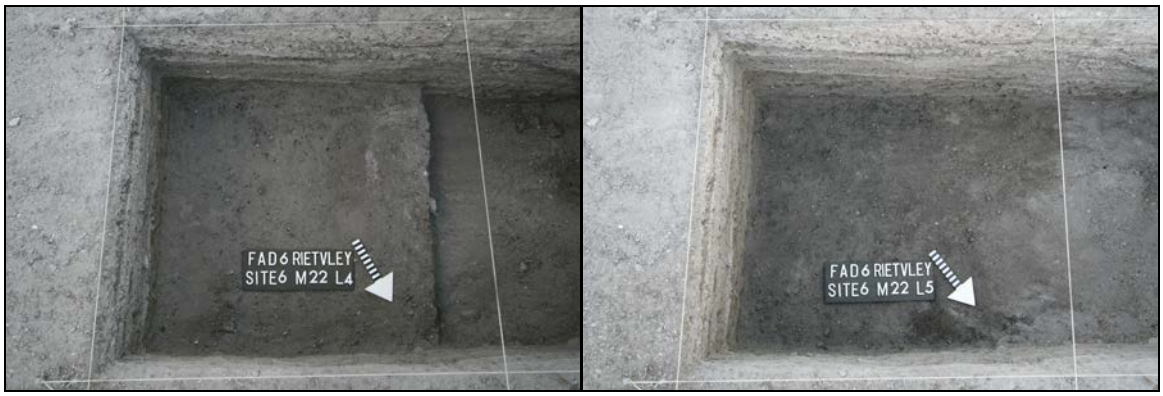

Figure 43: Excavation M22 on Level 4 and Level 5

Figure 44: Excavation M22 & M21 on Level 5

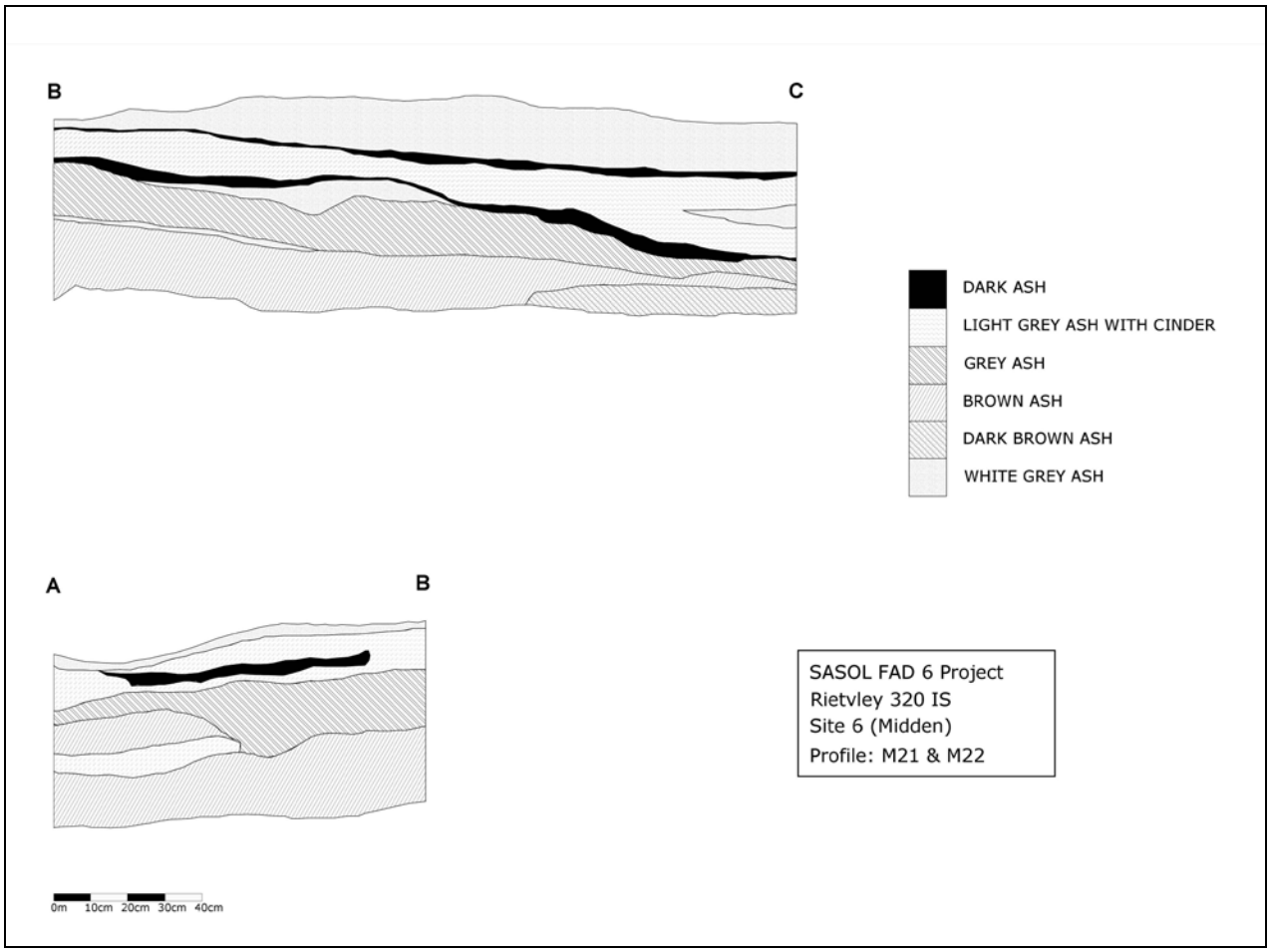

Figure 45: Profiles of Excavations M21 & M22

Excavation L14/15

Figure 46: Excavation L14/15 on Level 1 and Level 3 (quater sqaure down to Level 4)

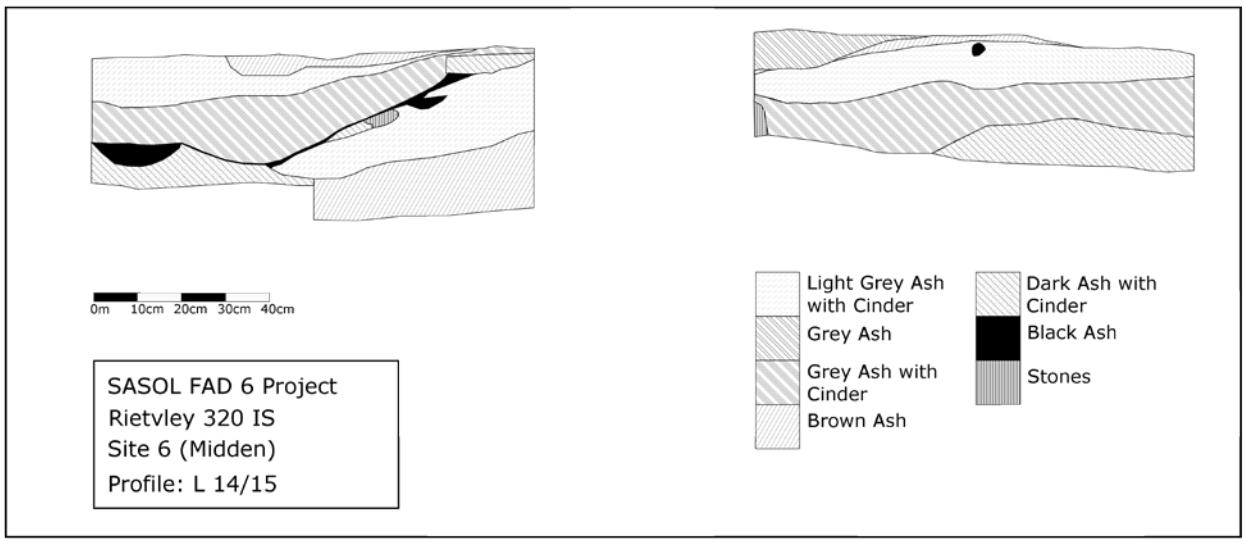

Figure 47: Profiles of L14/15: Northern profile (left), Western profile (right)

COMMENTS

- The cultural material recovered from the midden can confidently be associated with the occupation of the adjacent farm dwelling.
- Given the size of the midden the amount of material culture is surprisingly low.
- The elongated shape of the midden is unusual as early farm middens are mostly circular
- The dense matrix of ash and cinder contributes substantially to the size of the midden and suggests that despite the presence of a fragment of light bulb (L14-15/1) (Appendix D) the dwelling was not electrified or was electrified very late in the occupation sequence at the site.
- The artefact densities were variable across the excavated squares and between levels with relatively more cultural material present in the middle and lower levels of Squares M21 and M22. Square L14-15 yielded minimal amounts of cultural material and was composed primarily of botanical remains (principally charred corn cobs). This indicates a differential use of the midden through time and possible differential disposal patterns across the midden with certain classes of artefacts assigned to particular parts of the dumping or discard area.

- The cultural material in general reflects a baseline subsistence with few luxury items.
- Canned goods are surprisingly almost completely absent. It does not seem that any inherited (heirloom) crockery (ceramics) that were probably used for several generations, were recorded (see Appendix B).
- The faunal remains reflect a diet heavily reliant on bovids (mostly cattle) as well as goat/sheep and chicken (see Appendix A).

11. General Recommendations and Conclusions

Based on the Phase 2 research and results, the following is recommended:

- The Farmhouse Complex consisting of the relevant sites (Sites 1, 3 & 6) has been mapped, described and photographed;
- Excavations were undertaken and the analyses of all the cultural material have been completed for the Midden (Site 6);
- No further archaeological and historical work are recommended; and
- An application for a Destruction Permit for Sites 1, 3, and 6 may be applied for from SAHRA.

Please also note the following:

Archaeological deposits usually occur below ground level. Should archaeological artefacts or skeletal material be revealed in the area during development activities, such activities should be halted, and a university or museum notified in order for an investigation and evaluation of the find(s) to take place **(*cf*. NHRA (Act No. 25 of 1999)**, Section 36 (6)).

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APPENDIX A: FAUNAL ANALYSIS AND REPORT

Annie R. Antonites
annie.antonites@gmail.com

FAUNAL ANALYSIS

The faunal remains from Site 6 were analysed in accordance with international standards and methods (e.g., Lyman 2005). Remains were sorted according to 'identifiable' and 'unidentifiable' features. 'Unidentifiable' bones are those fragments that cannot be identified to a species or specific skeletal part. All 'identifiable' bones were identified to skeletal part and taxon with the aid of the comparative skeletal collection at Ditsong National Museum of Natural History (DNMNH) in Pretoria. Skeletal maturity (i.e. relative age at death) as well as any cultural and natural alteration to the bone was noted and described. Cultural alterations include damage caused to bone due to butchery (cut and chop marks), cooking and disposal practices (burning). Natural alterations may include animal damage (rodent and carnivore gnawing) and bone surface weathering.

DESCRIPTION OF THE ASSEMBLAGE

The faunal remains were analysed per excavated unit. Unit L14-15 is reported separately, while adjacent units M21 and M22 and all the ATP's are combined for ease of reporting. The details of the total bone sample for Site 6 are given in Table 1. The total bone sample consisted of 905 bones of which 13% was identifiable to taxon, i.e. species, genus or family level. Species identified are listed below in Table 2 (see Appendix A for a full inventory of all identifiable bone). The majority of bones were relatively fragmented, which resulted in the low identification rate.

	Units M21&M22		**Unit L14-15**		**ATP's**	
Skeletal Part	**NISP**	**Weight(g)**	**NISP**	**Weight(g)**	**NISP**	**Weight(g)**
Bovid Remains	51	178.5	-	-	1	0.1
Other Identifiable Remains	61	17.2	7	0.2	1	<0.1
Skull Fragments	3	1	1	0.5	-	-
Enamel Fragments	9	7	-	-	-	-
Vertebra Fragments	15	17.5	2	1	-	-
Rib Fragments	54	75	1	2	1	0.5
Bone Flakes	319	361	67	104.5	13	8.6
Miscellaneous Fragments	268	115.5	24	11.3	5	0.4
TOTAL	**780**	**772.7**	**102**	**119.5**	**23**	**9.6**

Table 1: Total sample of faunal material analysed from Site 6. NISP = number of identified specimens

As expected for a historical site, domesticated animals (all identified from M21&22) dominate the sample. Sheep and sheep/goat remains are particularly common, while chicken (and possible chicken) bones are also well represented. Bones that lacked diagnostic features were ascribed to size class only – the majority of which were from medium-sized bovids. These bones are most likely sheep, although goats cannot be ruled out either. Similarly, many of the bird bones could only be described as medium-sized or chicken-sized. These bones are most likely chicken. However, chicken and guineafowl remains are often difficult to separate. In addition, the site falls within the distribution range of helmeted guineafowl (*Numida meleagris*) (Hockey et al. 2005: 82) and they could be present at Site 6.

Wild animals identified include a medium and large-sized carnivore, a medium-sized bird (not chicken/guineafowl) as well as several fish remains. Due to the small comparative collection of fish bones at DNMNH, I was unable to identify whether these were freshwater or marine species. Small fragments of eggshell – probably from chicken eggs – sporadically occur in all excavated units (M21, M22 and L14-15) and in ATP 4. The small identifiable sample from L14-15 only contained fish and eggshell remains.

A marine gastropod shell (*Patella miniata*) was also identified from M22 (layer 10-20cm). These shells occur along South Africa's entire West Coast as well as along the East Coast, up to the East London region (Steyn & Lussi 1998: 14). The small size of the limpet suggests that it was either intentionally or unintentionally collected at the coast.
I was unable to identify two of the bones that retained enough diagnostic features for species identification. The first bone is a complete vertebrae of a non-bovid and the second possibly comes from a large bird. They did not match any of the comparative material at DNMNH. These two specimens are included in the total identifiable NISP in Table 1, but are excluded from Table 2.

A total of 668 (M21&22), 95 (L14-15) and 21 (ATP's) unidentifiable remains were recorded. These were sorted into vertebrae, ribs, bone flakes and miscellaneous fragments (Table 1). Bone flakes are unidentified long bone pieces, while miscellaneous bone represents pieces that cannot be assigned to any skeletal part. The higher bone counts from both these categories reflect the fragmented nature of the samples. Larger-sized bovids were noticeably absent from the identifiable bone sample; however, ribs and bone flakes of that size class were noted in M21, M22 and L14-15. The medium-sized bovid vertebrae, ribs and bone flakes are probably part of the large sample of sheep/goat remains.

CULTURAL AND NATURAL ALTERATION

Despite the low identification rate, identifiable bones were relatively well-preserved. For example, a complete left sheep/goat mandible, with an intact tooth row was recorded in M21 (20-30cm), as well as numerous bovid ankle and foot bones from M21 and M22. Most of the chicken/bird bones were also fairly complete. Bird bones are fragile and often fragment into pieces that are too small and undiagnostic to identify beyond size range. The amount of chicken bones and their high identification rate at Site 6 suggests that they were minimally processed and that large portions were buried with some meat still adhering. In addition, these bones were also covered with soil fairly soon after disposal. This pattern suggests that some chickens were buried without being cooked and eaten – perhaps as a result of disease, or being caught and partially consumed by a predator (see below).

Taxon	NISP
Carnivore (medium)	1
cf. Carnivore (large)	1
Ovis aries (sheep)	4
cf. *Ovis aries* (probably sheep)	4
Ovis/Capra (sheep/goat)	11
cf. Ovis/Capra (probably sheep/goat)	3
Bovid (small)	2
Bovid (medium)	28
Gallus domesticus (chicken)	1
cf. *Gallus domesticus* (probably chicken)	2
Phasianidae/ Numididae (chicken/guineafowl)	5
Bird (small)	1
Bird (medium, chicken-sized)	29
Bird (medium, not Phasianidae/ Numididae)	1
cf. Bird (possibly bird eggshell)	15
Fish (medium)	10
Patella miniata (limpet)	1
TOTAL	**119**

Table 2: Taxa and number of identified specimens (NISP) from Site 6

At M21 and M22, small bovids are represented by two limb bone fragments. Medium bovids are represented by eight cranial and 41 post-cranial elements. The latter includes 15 limb bones, 11 phalanges, eight sesamoids, four carpals/tarsals, two pelvis and a single scapula fragment. Lower limb bones (metapodials, carpals/tarsals and sesamoids) are particularly abundant. The morphology, density and size of these bones often facilitate higher rates of preservation and identification. The similarity in size of a number of lower limb bone elements suggest that at least one sheep/goat lower leg, probably with the foot still adhering, was disposed of in the midden.

Low numbers of rib and vertebra fragments (Table 1) are probably the result of fragmentation, rather than selective skeletal part disposal. Once these elements reach a certain level of fragmentation, it becomes difficult to distinguish between them and they can only be classed as ‘miscellaneous’. The midden area is known to have undergone extensive animal trampling (Coetzee 2015), which could have contributed to higher bone fragmentation. Although skull fragments are virtually absent from M21 and M22 (Table 1), the presence of identifiable teeth, a mandible and petrosal bone, indicate that at least one complete sheep/goat skull was deposited there.

The occurrence of human damage to the bones is uncommon, but those butchery marks that are present are consistent with carcass processing. Most of the butchered bones showed processing evidence using a mechanical saw. These cuts were clean and completely cut through the bone in a single movement. There were also examples of shallow cut marks made by a saw blade in the bones’ exposed cut surface. A number of large bovid (possibly cattle) ribs displayed such cuts, often running diagonally across the rib and clearly cut into smaller segments.

Almost 40% of the sample showed signs of burning, the majority of which came from M21 and M22. A number of bones were completely burnt (either carbonised or calcined), which shows that the entire bone fragment was exposed to the heat source for some time. This may have occurred before or after deposition. The majority of completely calcined bones also displayed an increased presence of hairline and larger cracks on the bone surface. These cracks seem to be related to the prolonged heating episodes. However, environmental conditions, such as changes in temperature and sun exposure, could also have affected the structurally weakened burnt bones. In some cases, it was difficult to distinguish completely calcined bones from potentially sun bleached ones.

Carnivore damage was very rare and only occurred on 11 bones (including bovid and bird bones). Although there were no specific carnivore species identified, the observed furrows, punctures and complete removal of long bone articular ends are consistent with damage caused by a medium-sized carnivore such as a dog. The two carnivore caudal vertebrae identified at M21 and M22 may well have come from a medium and large-sized dog.

Weathering affected the bones from all excavated units and ATP's to some degree. Chemical as well as physical processes can cause weathering and may result in cracking, flaking and complete erosion of the bone surface (Fisher 1995). Medium to high levels of weathering can partially or completely obscure cultural alterations such as butchery marks. The Site 6 samples displayed light to medium levels of weathering, which mainly consisted of hairline fractures, deep cracks and surface flaking. The extent of weathering was such that it did not noticeably affect the visibility of other taphonomic features. The deep cracks observed on many of the burnt and partially burnt bones may be related to heat exposure, rather than environmental conditions. On the other hand, extensive animal trampling (Coetzee 2015) could also have caused more cracking and surface damage.

CONCLUSION

The animal bone sample from Site 6 reflects a heavy reliance on available farm animals. Sheep and/or goats, in particular, seems to have been preferred, while chickens (and possibly chicken eggs) were also consumed. The inhabitants also exploited wild animals, such as birds and fish, as additional food sources. The presence of potentially articulating bovid and chicken skeletal parts, as well as the sheep/goat cranial elements, point to the disposal of skeletal portions that were not necessarily consumed. The midden may thus have accumulated from both household and other refuse. The general taphonomic composition of the sample, as well as the presence of medium-sized bovids and birds of different sizes and ages indicate multiple disposal events. Animal remains were either disposed of rapidly over a short period of time or covered with soil and other material remains soon after disposal. The relatively high incidence of burning and low weathering levels may indicate the deliberate burning and subsequent covering (with soil) of household and other refuse on the midden.

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APPENDIX A – Detailed list of identified faunal remains

Abbreviations:

SPECIES: cf. = probably

AGE: A = Adult, SA = Sub-adult, J = Juvenile

WEATHERING: FLF = Fine line fracture, LC = Large crack, FL = Flaking

#	Prove-nience	Species	Size Range	Age	Skeletal Part	Side	Weight (g)	Portion	Burnt	Weathered	Butchery	Carnivore	Other
	L14-15												
1	20-30cm	Fish	Medium	N/A	Vertebra	-	0.1	Incomplete	YES	NO	NO	NO	
2	0-10cm	UNK	UNK	N/A	Eggshell	-	0.01	Incomplete	NO	NO	NO	NO	Very small fragment
3	30-40cm	Fish	Medium	N/A	Vertebra	-	0.1	Incomplete	YES	LC	NO	NO	
4	10-20cm	Shell	UNK	N/A	Eggshell	-	0.01	Incomplete	YES	NO	NO	NO	Small fragment
5	10-20cm	Shell	UNK	N/A	Eggshell	-	0.01	Incomplete	YES	NO	NO	NO	Small fragment
6	10-20cm	Shell	UNK	N/A	Eggshell	-	0.01	Incomplete	NO	NO	NO	NO	Small fragment
7	10-20cm	Shell	UNK	N/A	Eggshell	-	0.01	Incomplete	NO	NO	NO	NO	Small fragment
8	ATP 7, 0-17cm	Bov II	Bov II	UNK	Metapodial	-	0.1	Distal fragment	YES	FLF	NO	NO	Burning localised
9	ATP 4, 0-44cm	Shell	UNK	N/A	Eggshell	-	0.01	Incomplete	NO	NO	NO	NO	Broken into multiple fragments
	M22												
10	0-10cm	Sheep	Bov II	SA	Phalanx III	-	1	Complete	NO	FLF	NO	YES(cf.)	Brown colouration from contact with metal
11	0-10cm	Bov II	Bov II	SA	Phalanx III	-	0.5	Distal fragment	YES	FLF	NO	NO	Burning localised, FLF from heat exposure, not same foot as 10 but cf. same animal
12	0-10cm	Bov II	Bov II	UNK	Phalanx II	-	0.5	Proximal fragment	NO	NO	NO	NO	Could be same animal as 10 & 11
13	0-10cm	Bov II	Bov II	UNK	Metatarsal	-	6	Shaft fragment	YES	LC	NO	NO	Could be same animal as 10,11,12
14	0-10cm	Bird	Medium	A	Vertebra	-	0.25	Incomplete	NO	NO	NO	YES(cf.)	Chicken-sized
15	0-10cm	Bird	Medium	A	Vertebra	-	0.25	Incomplete	NO	NO	NO	NO	All bird bones from this context could be same animal, chicken-sized
16	0-10cm	Small mammal/ bird	Small/ Medium	UNK	Long bone	-	0.25	Incomplete	NO	NO	NO	NO	ADDED TO NON_ID
17	0-10cm	Bird	Medium	A	Radius	L	0.25	Proximal & shaft portion	NO	NO	NO	NO	Chicken-sized
18	0-10cm	Bird	Medium	A	Radius	-	0.25	Distal & shaft portion	NO	FLF	NO	NO	Chicken-sized
19	10-20cm	Patella miniata	Small	N/A	Shell	-	0.25	Complete	NO	NO	NO	NO	Limpet
20	10-20cm	Shell	UNK	N/A	Eggshell	-	0.01	Incomplete	YES	NO	NO	NO	
21	10-20cm	Bov II	Bov II	UNK	Phalanx II	-	0.5	Distal fragment	YES	NO	NO	NO	Burning complete
22	10-20cm	Bov II	Bov II	A	Radius	-	1	Distal fragment	NO	FLF, LC	NO	NO	

23	10-20cm	Bov II	Bov II	A	Metatarsal	R	1	Proximal & shaft portion	NO	FLF	NO	NO	
24	20-30cm	Fish	Medium	N/A	Vertebra	-	0.1	Complete	NO	NO	NO	NO	All fish bones from this context could be the same animal
25	20-30cm	Fish	Medium	N/A	Vertebra	-	0.1	Complete	NO	NO	NO	NO	
26	20-30cm	Fish	Medium	N/A	Vertebra	-	0.1	Incomplete	NO	NO	NO	NO	
27	20-30cm	Fish	Medium	N/A	Vertebra	-	0.1	Incomplete	NO	NO	NO	NO	
28	20-30cm	Fish	Medium	N/A	Vertebra	-	0.1	Incomplete	NO	NO	NO	NO	
29	20-30cm	Bov I/II	Bov I/II	UNK	Metacarpal*	-	2	Shaft fragment	NO	LC	NO	NO	
30	20-30cm	Sheep	Medium	SA	Phalanx III	-	0.75	Complete	NO	NO	NO	NO	Porous bone surface
31	20-30cm	Carnivore	Medium	A	Vertebra	-	0.5	Complete	NO	NO	NO	NO	Caudal
32	20-30cm	Bird	Medium	A	Radius	L	0.5	Distal & shaft	NO	FLF	NO	NO	FLF possibly from carnivore or trampling
33	20-30cm	Bird	Medium	A	UNK	-	0.25	Incomplete	NO	NO	NO	NO	
34	20-30cm	Bird	Medium	A	UNK	-	0.25	Incomplete	NO	NO	NO	NO	
35	30-40cm	Bov II	Bov II	A	Pelvis	R	0.75	Acetabulum and ischium fragment	NO	LC	NO	NO	White colour (from heat/sun)
36	30-40cm	Bov II	Bov II	A	Metapodial	-	3	Shaft fragment	NO	LC	NO	NO	
37	30-40cm	Bov II	Bov II	A	Os petrosum	L	4	Incomplete	NO	NO	NO	NO	
38	30-40cm	Sheep/goat	Bov II	SA	Phalanx I	-	3	Complete	NO	NO	NO	YES	Fusion line visible
39	30-40cm	Sheep/goat	Bov II	A	Humerus	R	10	Distal	NO	LC	NO	YES(cf.)	Possible carnivore gnawing
40	30-40cm	Shell	UNK	N/A	Eggshell	-	0.01	Incomplete	YES	NO	NO	NO	
41	30-40cm	Shell	UNK	N/A	Eggshell	-	0.01	Incomplete	NO	NO	NO	NO	
42	30-40cm	Shell	UNK	N/A	Eggshell	-	0.01	Incomplete	NO	NO	NO	NO	
43	30-40cm	Bird	Medium	A	Pelvis	R	1	Incomplete	NO	LC	NO	NO	All bird bones from this context could be same animal
44	30-40cm	Chicken/ Guineafowl	Medium	A	Coracoid	R	0	Proximal fragment	NO	NO	NO	NO	
45	30-40cm	Bird	Medium	A	Rib	-	0	Incomplete	NO	NO	NO	NO	
46	30-40cm	Bird	Medium	A	Long bone	-	0	Shaft fragment	NO	NO	NO	NO	
47	30-40cm	Bird	Medium	A	UNK	-	0	Incomplete	NO	NO	NO	NO	
48	30-40cm	Bird	Medium	A	UNK	-	0	Incomplete	NO	NO	NO	NO	

49	40-50cm	Shell	UNK	N/A	Eggshell	-	0	Incomplete	NO	NO	NO	NO	
50	40-50cm	Shell	UNK	N/A	Eggshell	-	0	Incomplete	NO	NO	NO	NO	
51	40-50cm	Shell	UNK	N/A	Eggshell	-	0	Incomplete	NO	NO	NO	NO	
52	40-50cm	Sheep/goat	Bov II	A	Scapula	L	2	Glenoid	NO	FLF, LC, FL	NO	NO	
53	40-50cm	Bird	Medium	A	Rib	-	0.25	Incomplete	NO	NO	NO	NO	
54	40-50cm	cf. Chicken	Medium	A	Coracoid	L	0.5	Complete	NO	NO	NO	NO	
55	40-50cm	Bird	Medium	A	Coracoid	L	0.5	Complete	NO	NO	NO	NO	Not chicken
56	40-50cm	UNK	UNK	UNK	UNK	-	5	Incomplete	NO	NO	NO	NO	Cannot ID
	M21												
57	0-10cm	Sheep/goat	Bov II	SA	Tarsal (2+3)	L	0.5	Complete	YES	FLF	NO	NO	Could be same as 58, 59 & cf. 60
58	0-10cm	Bov II	Bov II	SA	Sesamoid	-	0.1	Complete	YES	FLF	NO	NO	
59	0-10cm	Bov II	Bov II	SA	Sesamoid	-	0.1	Complete		FLF	NO	NO	
60	0-10cm	cf. Sheep	Bov II	A	Phalanx II	-	2	Complete	YES	FLF, LC	NO	NO	
61	0-10cm	Bov II	Bov II	UNK	Metacarpal/ Radius	-	2	Shaft fragment	YES	FLF	NO	NO	
62	0-10cm	Bov II	Bov II	UNK	Humerus	-	2	Distal shaft fragment	YES	NO	NO	NO	White colour (from heat/sun)
63	0-10cm	Bird	Medium	A	Vertebra	-	0.25	Incomplete	NO	NO	NO	YES(cf.)	Chicken-sized
64	0-10cm	Bird	Medium	SA	Phalanx I	-	0.5	Complete	NO	NO	NO	NO	Fusion line visible, chicken-sized
65	10-20cm	Shell	UNK	N/A	Eggshell	-	0.01	Incomplete	NO	NO	NO	NO	
66	10-20cm	Bird	Medium	SA	Phalanx II	-	0.25	Complete	NO	NO	NO	NO	Porous bone surface, chicken-sized
67	10-20cm	Bird	Medium	SA	Phalanx II	-	0.25	Complete	NO	NO	NO	NO	Porous bone surface, chicken-sized
68	10-20cm	Bird	Medium	A	Vertebra	-	0.25	Incomplete	NO	NO	NO	NO	Slight discolouration from hot ash, cf. chicken-sized
69	10-20cm	Bird	Medium	A	Vertebra	-	0.25	Incomplete	NO	NO	NO	NO	Slight discolouration from hot ash, cf. chicken-sized
70	10-20cm	Sheep/goat	Bov II	A	Metapodial	-	2	Distal fragment	YES	FLF, LC	NO	NO	
71	20-30cm	cf. Sheep	Bov II	A	Mandible	L	67	Mandible portion & tooth row	NO	FLF	NO	YES	Extensive carnivore damage to mandible
72	20-30cm	Shell	UNK	N/A	Eggshell	-	0.01	Incomplete	NO	NO	NO	NO	Broken into multiple fragments
73	20-30cm	Bov II	Bov II	A	Humerus	-	2	Distal fragment	YES	LC	NO	NO	

74	20-30cm	Sheep	Bov II	A	Carpal	L	2	Complete	YES	FLF, LC	NO	NO	Indeterminate carpal
75	20-30cm	UNK	UNK	A	Vertebra	-	0.5	Complete	NO	NO	NO	NO	
76	20-30cm	Chicken/ Guineafowl	Medium	A	Coracoid	R	0.25	Distal fragment	NO	LC	NO	NO	LC possibly result of carnivore damage
77	20-30cm	Chicken/ Guineafowl	Medium	A	Coracoid	R	0.25	Proximal fragment	NO	NO	NO	NO	Probably same bone as 76
78	20-30cm	Chicken/ Guineafowl	Medium	A	Furcula	-	0.25	Incomplete	NO	NO	NO	NO	
79	20-30cm	Chicken/ Guineafowl	Small	A	Furcula	-	0.1	Incomplete	NO	NO	NO	NO	
80	20-30cm	cf. Carnivore	Large	A	Vertebra	-	1	Incomplete	NO	FLF	NO	YES	Caudal, could be from large dog
81	20-30cm	Bird	Medium	A	Furcula	-	0.1	Incomplete	NO	FLF, LC	NO	NO	Chicken-sized
82	20-30cm	Bird	Medium	A	Scapula	-	0.1	Incomplete	NO	NO	NO	NO	Chicken-sized
83	20-30cm	Bird	Medium	A	Rib	-	0.1	Incomplete	NO	NO	NO	NO	
84	30-40cm	Bov II	Bov II	A	Metacarpal	-	21	Shaft	NO	NO	YES	NO	Carnivore removed both articular ends, extensive gnawing on remaining shaft
85	30-40cm	Sheep/goat	Bov II	A	Metapodial	-	5	Distal	NO	LC	NO	NO	Smaller than 86
86	30-40cm	Bov II	Bov II	A	Metapodial	-	3	Shaft fragment	YES	NO	NO	NO	Larger than 85
87	30-40cm	Bov I	Bov I	UNK	Metatarsal	-	2	Shaft fragment	NO	NO	NO	NO	Smaller than 85, 86
88	30-40cm	cf. Sheep/goat	Bov II	J	Pelvis	L	2	Pubis	NO	NO	CUT	NO	Sawn through
89	30-40cm	Sheep/goat	Bov II	UNK	Metapodial	-	0.5	Distal fragment	YES	FLF	NO	NO	Probably same animal as 86, 91
90	30-40cm	Sheep/goat	Bov II	UNK	Metapodial	-	0.5	Distal fragment	YES	FLF	NO	NO	Probably same animal as 86, 90
91	30-40cm	Bov II	Bov II	UNK	Phalanx II	-	0.5	Distal fragment	YES	NO	NO	NO	Could be same animal as 86, 90, 91
92	30-40cm	Sheep	Bov II	A	Phalanx III	-	1	Complete	NO	FLF	NO	NO	Could match 30
93	30-40cm	cf. Sheep	Bov II	A	Phalanx I	-	2	Complete	NO	NO	NO	NO	Could match 92, similar to 94: could be hind & front foot from same animal
94	30-40cm	cf. Sheep	Bov II	A	Phalanx I	-	2	Complete	NO	NO	NO	NO	Could match 92, similar to 93: could be hind & front foot from same animal
95	30-40cm	cf. Sheep/goat	Bov II	A	Tooth	R	0.5	Complete	NO	FLF	NO	NO	Incisor, possibly same as and occludes to 96
96	30-40cm	cf. Sheep/goat	Bov II	A	Tooth	R	0.5	Complete	NO	NO	NO	NO	Incisor, possibly same as and occludes to 95
97	30-40cm	Bov II	Bov II	SA	Sesamoid	-	0.1	Complete	NO	NO	NO	NO	All sesamoids probably from same animal

98	30-40cm	Bov II	Bov II	SA	Sesamoid	-	0.1	Complete	NO	NO	NO	NO	
99	30-40cm	Bov II	Bov II	SA	Sesamoid	-	0.1	Complete	NO	NO	NO	NO	
100	30-40cm	Bov II	Bov II	SA	Sesamoid	-	0.1	Complete	NO	NO	NO	NO	
101	30-40cm	Bov II	Bov II	SA	Sesamoid	-	0.1	Complete	NO	NO	NO	NO	
102	30-40cm	Bov II	Bov II	SA	Sesamoid	-	0.1	Complete	NO	NO	NO	NO	
103	30-40cm	Bird	Medium	A	UNK	-	0.01	Incomplete	NO	NO	NO	NO	Rib or coracoid fragment
104	30-40cm	Bird	Small-Medium	A	Vertebra	-	0.01	Incomplete	NO	NO	NO	NO	Caudal (tip of tail), smaller than chicken
105	30-40cm	Bird	Medium	A	Rib	-	0.01	Incomplete	NO	NO	NO	NO	Chicken-sized
106	30-40cm	Bird	Medium	A	Rib	-	0.01	Incomplete	NO	NO	NO	NO	Chicken-sized
107	30-40cm	Bird	Medium	A	Furcula	-	0.01	Incomplete	NO	NO	NO	NO	Chicken-sized
108	30-40cm	Bov II	Bov II	SA	Tooth	-	0.1	Incomplete	NO	NO	NO	NO	Incisor
109	30-40cm	Fish	Medium	N/A	Vertebra	-	0.1	Complete	NO	NO	NO	NO	All fish bones from this context could be the same animal
110	30-40cm	Fish	Medium	N/A	Vertebra	-	0.1	Incomplete	NO	NO	NO	NO	
111	30-40cm	Fish	Medium	N/A	Vertebra	-	0.1	Incomplete	NO	NO	NO	NO	
112	40-50cm	Sheep/goat	Bov II	A	Tooth	R	0.5	Complete	NO	LC	NO	NO	Incisor, possibly same as and occludes to 95, 96
113	40-50cm	Bov II	Medium	A	Ulna	R	0.1	Distal shaft fragment	NO	NO	NO	NO	
114	40-50cm	Bird	Medium	A	Radius*	-	0.1	Proximal shaft	NO	NO	NO	NO	All bird bones from this context could be same animal
115	40-50cm	Bird	Medium	A	Skull	-	0.1	Incomplete	NO	NO	NO	NO	
116	40-50cm	Bird	Medium	A	Skull	-	0.1	Incomplete	NO	NO	NO	NO	
117	40-50cm	cf. Chicken	Medium	SA	Femur	R	0.25	Proximal & shaft portion	YES	NO	NO	NO	Localised burning
118	40-50cm	Sheep/goat	Bov II	A	Tooth	R	5	Incomplete	NO	NO	NO	NO	M1/M2(upper)
119	40-50cm	Bov II	Bov II	SA	Tooth	R	0.5	Complete	NO	LC	NO	NO	Incisor
120	40-50cm	Bov II	Bov II	A	Astragalus	L	2	Incomplete	YES	FLF, LC	NO	NO	
121	40-50cm	Sheep/goat	Bov II	A	Calcaneum	L	14	Complete	NO	NO	NO	YES	Big puncture/hole from carnivore gnawing, possibly goat
122	40-50cm	Chicken	Medium	A	Ulna	L	1	Proximal	NO	NO	NO	NO	

APPENDIX B: IMPORTED CERAMICS ANALYSIS

The Rietvley imported ceramic assemblage (n = 159) was recovered from Auger Test 5, the three excavated squares (M21, M22 and L14-15) and from a surface collection conducted over and immediately around the site.

ANALYTICAL PROTOCOLS

The ceramics were cleaned using water and a soft toothbrush. Each fragment was labelled to indicate the provenience (Table B1) and to facilitate cross-mends and minimum vessel (MNV) counts (see Tables B3 and B4).

PROVENIENCE	LABEL	NUMBER
Surface Collection	RV s.c.	51
Auger Test 5	RV AT5	1
M21 Level 1	RV M21/1	4
M21 Level 2	RV M21/2	1
M21 Level 3	RV M21/3	12
M21 Level 4	RV M21/4	8
M21 Level 5	RV M21/5	20
M22 Level 1	RV M22/1	6
M22 Level 2	RV M22/2	7
M22 Level 3	RV M22/3	11
M22 Level 4	RV M22/4	9
M22 Level 5	RV M22/5	27
L14-15 Level 1	RV L14-15/1	2
L14-15 Level 2	RV L14-15/2	0
L14-15 Level 3	RV L14-15/3	0
L14-15 Level 4	RV L14-15/4	0
TOTAL		**159**

TABLE B1: RIETVLEY IMPORTED CERAMICS: PROVENIENCE LABELS AND SHERD COUNTS

The ceramics were classified using a typology developed by the Historical Archaeology Research Group (HARG) at the University of Cape Town (Klose & Malan 2000). This system is aligned with international standards (Majewski & O'Brien 1987; Brooks 2005) whilst remaining sensitive to local contexts and seeks to establish analytical comparability across a variety of archaeological assemblages and sites. Sherds were sorted initially according to their body or ware type (Porcelain, Stoneware or Refined Industrial Ware) and subsequently by decoration.

The minimum number of vessels (MNVs) was calculated by sorting fragments within each decorative category according to the form or shape of the vessel. Within each group rim or footring sherds and decoration were matched to estimate the number of vessels. Wherever possible sherds were assigned a specific shape or form (e.g. plate, cup); where the exact form could not be confidently and accurately deduced the sherds were classified as 'unidentified' and qualified as either hollow-ware or flatware. A sherd that lacks any identifiable characteristics was classified as 'undiagnostic' (Klose & Malan 2000). Preliminary analyses

(ware type and decoration) were conducted by square and level but MNVs were calculated across the assemblage in order to avoid an artificially inflated MNV count.
Undecorated fragments were included in sherd counts but were excluded from MNV calculations unless an individual sherd (or cross-mended fragments) was sufficiently complete to indicate an undecorated vessel. Klose and Malan (2000: 53) note that in practice this means that undecorated sherds may be under-represented in MNV counts but this is regarded as preferable to an inflated MNV count.

Ceramics were cross-mended during analysis with small sections of Scotch tape. This does not damage the fragments and is easily removed. Permanent cross-mends are not advocated by HARG as this can significantly increase the archival space required for long-term curation.

Sherds exhibiting fresh breaks were re-matched wherever possible and counted as single sherds.

COMMENTS

- The Rietvley imported ceramic assemblage (n = 159) represents 32 vessels (Tables B2 and B4). Although the majority of the sherds are small, distinctions in ware type and decoration facilitated an accurate MNV count.
- The density of excavated ceramics is greatest in the middle and lower levels of squares M21 and M22 and may represent a change in the use of ceramics and disposal patterns through time.
- The Rietvley imported ceramics are exclusively domestic in character and are composed of tea and tablewares: plates of various sizes, cups, saucers and two serving dishes. Kitchen-wares and health and hygiene related ceramics are not present. No building related ceramics (e.g. tiles) or doll's china were recovered. The context and character of the Rietvley ceramic assemblage is unambiguously domestic and can be associated with the documented occupation of the adjacent farmhouse.
- The assemblage is comprised principally of Porcelain (40.63%) and Refined Industrial Wares (53.13%) with a low incidence of glass-ceramic (6.25%) (Table B2). Stoneware, Refined Stoneware and Ironstone are not represented.

WARE TYPE: ALL LOCI	SHERDS	% SHERDS	MNV	% MNV
Porcelain	51	32.08	13	40.63
Refined Industrial Ware: White-bodied White Ware	46	28.93	15	46.88
Refined Industrial Ware: Coloured-bodied Ware	36	22.64	2	6.25
Glass-ceramic	26	16.35	2	6.25
TOTAL	**159**	**100.0**	**32**	**100.0**

TABLE B2: RIETVLEY IMPORTED CERAMICS: WARE SUMMARY

- The incidence of cross-mends is low and occurs within levels or between adjacent levels (M21/3 with M21/4 and M22/4 with M21/5). This suggests that despite surface trampling of the midden the deeper layers of midden deposit have not suffered from extensive post-depositional disturbances.

- A small number of ceramic sherds (n = 8) (5.03%) exhibit signs of burning or heat damage.
- A maker's mark is present on three sherds (M21/3) (RIW W-BW, lithographic), M22/5 (RIW W-BW, undecorated) and surface collection (RIW C-BW, blue-glazed). None of the marks are sufficiently complete to permit detailed identification. The low incidence of maker's marks accords with manufacturing trends from the nineteenth and twentieth centuries.
- The Rietvley ceramic assemblage is highly diverse in terms of decoration with no evidence for matched sets of tea and tablewares. This is an interesting and potentially important pattern that requires detailed comparative analyses with assemblages from a range of chronologically and functionally similar sites as well as chronologically and functionally disparate sites.
- One fragment of Refined Industrial Ware from M22/5 provides an example of nineteenth century/early twentieth century handpainted wares (undiagnostic flat-ware) and may represent an heiroomed vessel.
- Historical evidence suggests that the Rietvley ceramics represent a discrete, tightly dated and well provenienced household assemblage that is ideal for longer term research objectives. It is therefore regrettable that a comparative assemblage from the adjacent dwellings (e.g. Site 4) (Coetzee 2011) could not be obtained.

TABLE B3: RIETVLEY IMPORTED CERAMICS: WARE TYPE AND DECORATION SUMMARY

CODE	PROVENIENCE	SURFACE	AT	SQUARE M21					SQUARE M22					SQUARE L14-15	TOTALS		
	WARE & DECORATION	s.c.	AT5	1	2	3	4	5	1	2	3	4	5	1	TOTAL	MNV	% MNV
A	**STONEWARE**																
B	**PORCELAIN**																
B1	blue & white							7			1	1	5		14	4	12.5
B2	gold & white					2									2	2	6.25
B3	moulded																
B4	moulded, colour-washed & enamelled										2				2	1	3.13
B5	painted	1													1	1	3.13
B6	printed (underglaze)																
B7	enamelled							1							1	1	3.13
B8	enamelled & gold																
B9	banded (u/g), enamelled & gold																
B10	lithographic print							1							1	1	3.13
B11	lustre					1					1		4		6	2	6.25
B12	lustre & gold																
B13	lustre & moulded																
B14	lustre & painted																
B15	lustre & enamelled																
B16	lustre & lined																
B17	lined																
B18	lined & enamelled																
B19	coloured glaze										1				1	1	3.13
B20	undecorated	10		1				2		2	4	2	2		23	-	
B21	unidentified																
	REFINED INDUSTRIAL WARE (RIW)																
C	**Refined White-bodied: White Ware** (non-semi & vitreous white-bodied wares: clear/coloured glazes)																
C1	painted blue																
C2	painted (harsh colours)												1		1	1	3.13
C3	painted (other colours)												2		2	1	3.13
C4	gold & white																
C5	enamelled																
C6	enamelled & gold																
C7	lustre																
C8	u/g printed: blue Willow					1									1	1	3.13
C9	u/g printed: blue other																
C10	u/g printed: grey																
C11	u/g printed: green																

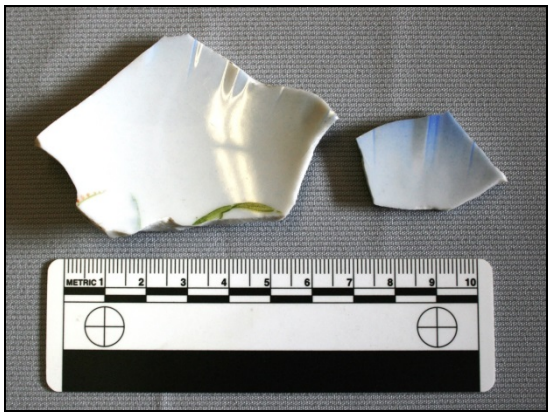
CODE	PROVENIENCE	SURFACE	AT	SQUARE M21					SQUARE M22					SQUARE L14-15	TOTALS		
	WARE & DECORATION	s.c.	AT5	1	2	3	4	5	1	2	3	4	5	1	TOTAL	MNV	% MNV
C12	u/g printed: other																
C13	print & paint																
C14	printed multi-colour																
C15	printed o/g (lithographic)							1				2			3	1	3.13
C16	printed o/g (lithographic) & gold & moulded					1	3								4	1	3.13
C17	sponged																
C18	spatter																
C19	relief decorated																
C20	moulded												1		1	1	3.13
C21	Lined							3					1		4	3	9.38
C22	lined & moulded					1									1	1	3.13
C23	lined & gold																
C24	lined & moulded & gold						1								1	1	3.13
C25	moulded & gold																
C26	cream-coloured	2						1					1		4	1	3.13
C27	cream-coloured & lined							1					1		2	1	3.13
C28	coloured glaze												1		1	1	3.13
C29	undecorated		1		1	3	4			1	1	2	7		19	-	
C30	unidentified (cf. lithographic)					2									2	1	3.13
D	**Refined Coloured-Bodied Ware**																
D1	'teapot' ware																
D2	brown-bodied: brown glazed																
D3	blue-bodied: blue glazed	23		3				3	2	2	1	1	1		36	2	6.25
E	**Refined Stoneware**																
F	**'Hotel-ware'**																
G	**GLASS-CERAMIC**	15				1	1		4	2		1		2	26	2	6.25
H	**DOLL'S CHINA**																
I	**BUILDING TILE**																
	TOTAL	**51**	**1**	**4**	**1**	**12**	**8**	**20**	**6**	**7**	**11**	**9**	**27**	**2**	**159**	**32**	**100.1**

TABLE B4:RIETVLEY IMPORTED CERAMICS: FORM & FUNCTION SUMMARY

		PORCELAIN							RIW W-B WARE													RIW C-B WARE	GC	
FORM & POSSIBLE FUNCTION	**B1**	**B2**	**B4**	**B5**	**B7**	**B10**	**B11**	**B19**	**C2**	**C3**	**C8**	**C15**	**C16**	**C20**	**C21**	**C22**	**C24**	**C26**	**C27**	**C28**	**C30**	**D3**	**G**	**TOTAL**
Platter																								
platter/plate					1														1			1		3
plate: table																								
plate: deep																								
plate: table/deep	2											1		1	2									6
plate: small	1					1																		2
plate: size indet.																								
saucer							1									1								2
small plate/saucer																	1							1
cup	1						1														1			3
bowl																								
cup/small bowl																								
eggcup																								
shallow dish													1											1
serving dish																							1	1
cover																		1						1
unidentified flat-ware		1	1	1																				3
unidentified hollow-ware															1					1		1	1	4
undiagnostic flat-ware				1					1	1	1													3
undiagnostic hollow-ware		1						1																2
undiagnostic																								
ornamental																								
TOTAL MNV	**4**	**2**	**1**	**1**	**1**	**1**	**2**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**3**	**1**	**1**	**1**	**1**	**1**	**1**	**2**	**2**	**32**
% TOTAL MNV	**12.5**	**6.25**	**3.13**	**3.13**	**3.13**	**3.13**	**6.25**	**3.13**	**3.13**	**3.13**	**3.13**	**3.13**	**3.13**	**3.13**	**9.38**	**3.13**	**3.13**	**3.13**	**3.13**	**3.13**	**3.13**	**6.25**	**6.25**	**100.1**

RV M21/3
Porcelain: lustre

RV M21/5
Porcelain: enamelled



RV M22/3
Porcelain: moulded, colour-washed & enamelled

RV M22/5 & RV M21/5
Porcelain: printed under-glaze (Willow)

RV M22/5 & RV M22/3
RIW W-BW: colour glazed (yellow) and Porcelain: colour glazed (green)

RV M21/3 & M21/4
RIW W-BW: printed over-glaze (lithographic), moulded & gilded

RV M22/4 & M21/5
RIW W-BW: printed over-glaze (lithographic)

RV M21/3
RIW W-BW: moulded & lined

RV M22/5
RIW W-BW: moulded

RV M21/5, M21/5 & M21/5
RIW W-BW: lined

RV M22/5 &M22/5
RIW W-BW: handpainted

RVM21/3
RIW W-BW: unidentified (c/f lithographic)

RV M22/1, surface collection & M21/5
RIW C-BW: blue glazed

RV M22/1 & surface collection
Glass-ceramic

APPENDIX C: GLASS ANALYSIS

The Rietvley glass assemblage (n = 1018) was recovered from the auger tests, the three excavated squares (M21, M22 and L14-14) and from a surface collection conducted over and around the site. Glass was present in Auger Tests 1, 4 and 7 and occurred in all excavated levels with the exception of L14-15/3.

ANALYTICAL PROTOCOLS

The glass was cleaned using water and a soft toothbrush. Sherds were analysed by square and by level but the minimum number of vessels (MNV) was calculated for the entire assemblage to avoid artificially inflating the MNV count. The assemblage is extremely fragmented with 180 sherds (17.68%) exhibiting moderate to severe heat damage. In combination these factors have resulted in a low rate of identification.

The glass was sorted initially into three broad categories: containers, flat glass and tableware. No ornamental glass was recovered. Given the fragmented nature of the assemblage analyses relied upon colour as the primary diagnostic feature, although the criticisms of Jones & Sullivan (1989: 12) are noted, *viz* that colour does not have a direct relation with glass type, it is not related to the technology of glass object production and is only weakly related to the function of the object. The usefulness of colour for establishing minimum vessel counts is, however, generally acknowledged (Jones & Sullivan 1989: 12) and necks, bases and diagnostic fragments were accordingly used as enumerative markers. A total of 29 containers and three tableware fragments (one drinking glass, one pie dish and one plate/shallow dish) were identified.

COMMENTS

- A summary of glass data for all squares and levels is provided below (data by square and level is provided at the end of the appendix).

ALL LOCI	sherds	complete	weight (g)	neck/lip	base	diagnostic fragment	MNV	% MNV
CONTAINER								
colourless	705	1	2326.63	9	7	11	16	50.0
aqua	1		11.0			1	1	3.13
light green	12		147.0		1		1	3.13
green	33		88.0				2	6.25
dark green	5		16.0				1	3.13
blue	4		4.0				2	6.25
brown	124	1	346.52	1		2	5	15.63
red	1		2.0				1	3.13
TABLEWARE	16		80.0			1	3	9.38
FLAT GLASS	117		121.04					
UNDIAGNOSTIC								
TOTAL	1018	2	3142.19	10	8	15	32	100.0

- Colourless sherds dominate the assemblage representing 69.25% of the sherds and 74.05% of the assemblage by weight. This is in keeping with a general trend towards increased amounts of colourless glass over time (Baugher-Perlin 1982: 272; Cheek & Friedlander 1990: 40) and is typical of a twentieth-century site.
- A number of the recovered fragments exhibit commercial marks in the form of embossing (raised letters and symbols) and applied colour labels (ACLs), baked on enamel colours that become an integral part of the glass. ACLs were used commercially from 1934, primarily on soft drink bottles (Jones & Sullivan 1989: 16) and provide a *terminus post quem* (TPQ) (date after which) for these artefacts. Few sherds are sufficiently large enough for detailed identification. A summary of this data is provided below.

PROVENIENCE	DETAIL	COMMENT
surface collection	complete colourless ink bottle, embossed: Talana 	TPQ c.1919-1935 South African glassworks located at Dundee, KwaZulu-Natal. Merged with Consolidated Glass Works in 1954.
M21/1	brown base, embossed: '5' brown lip: continuous external threaded closure (helix)	 twentieth century (www.sha.org)
M21/2	colourless sherd, ACL: blue & white	TPQ 1934
M21/3	complete brown bottle (with clear dropper and rubber closure)	medicinal
M21/3	colourless sherds (4), ACL: blue & white colourless sherds (5), ACL: orange	TPQ 1934
M21/4	colourless base, embossed: 'HIG' colourless sherd, embossed: 'JAR AK BOTTLE' colourless sherds (2), ACL: red colourless sherds (11), ACL: orange colourless sherds (2), ACL: white aqua sherd, embossed: 'RA … CHEM … … HEFSTROOM &'	 TPQ 1934 TPQ 1934 TPQ 1934 TPQ 1934 possible hygiene container

PROVENIENCE	DETAIL	COMMENT
M21/5	colourless sherds (3), ACL: white Coca Cola bottle colourless sherds (3), ACL: white & red colourless sherd (1), ACL: blue 'TY … RAZOR 53 JEPPE STRE …NESBURG' colourless base, embossed: 2oz △ 4 5.	TPQ 1934 TPQ 1934 TPQ 1934 TAQ (*terminus ante quem)* (date before which) 1961: South Africa converted to the metric system in 1961. Note however that bottle recycling can result in depositional lag (Busch 1991).
M22/2	colourless sherd (1), ACL: orange colourless sherd (1), ACL: green	TPQ 1934 TPQ 1934
M22/3	colourless sherds (2), ACL: orange colourless sherd (1), ACL: yellow colourless sherd (1), ACL: brown/silver	TPQ 1934 TPQ 1934 TPQ 1934
M22/4	colourless bases (4), embossed: - CW inside base of triangle with W and 346 below triangle - 3A 77253 above section of triangle with C at apex and W in lower right corner - W inside a triangle with the number 1, 14 and 7 either side and beneath the triangle - the number 29 colourless sherd, embossed: not identifiable colourless sherd (1), ACL: red colourless sherd (1), ACL: white colourless sherd (1), ACL: yellow & green	Two of the bases may indicate Consolidated Glass Works Bottles providing a TPQ of 1954 (www.consol.co.za). Numbers may be mould numbers or dates of manufacture. TPQ 1934 TPQ 1934 TPQ 1934
M22/5	colourless base: Coca Cola bottle	

- Two neck fragments from M21/5 exhibit seam lines from base to rim indicating the bottles were machine made and providing a TPQ of 1903 (Jones & Sullivan 1989; Lastovica & Lastovica 1990).
- Flat glass fragments (n = 117) account for 11.49% of the glass assemblage by weight and plausibly relate to the successive building phases at the adjacent dwelling.

RIETVLEY GLASS: DATA SHEETS[1] (SQUARE AND LEVEL ANALYSES)

SURFACE COLLECTION	sherds	complete	weight (g)	neck/lip	base	diagnostic fragment	MNV	% MNV
CONTAINER								
colourless	2	1	64.83			1	2	66.6
aqua								
light green								
green								
dark green								
blue								
brown	1		0.42				1	33.3
red								
TABLEWARE								
FLAT GLASS	1		1.04					
UNDIAGNOSTIC								
TOTAL	4		66.29			1	3	99.9

AUGER TEST 1	sherds	complete	weight (g)	neck/lip	base	diagnostic fragment	MNV	% MNV
CONTAINER								
colourless	3		0.72				-	
aqua								
light green								
green								
dark green								
blue								
brown								
red								
TABLEWARE								
FLAT GLASS								
UNDIAGNOSTIC								
TOTAL	3		0.72				-	

[1] Glass data table adapted from Behrens (1999)

AUGER TEST 4	sherds	complete	weight (g)	neck/lip	base	diagnostic fragment	MNV	% MNV
CONTAINER								
colourless	1		0.06				-	
aqua								
light green								
green								
dark green								
blue								
brown								
red								
TABLEWARE								
FLAT GLASS								
UNDIAGNOSTIC								
TOTAL	1		0.06				-	

AUGER TEST 7	sherds	complete	weight (g)	neck/lip	base	diagnostic fragment	MNV	% MNV
CONTAINER								
colourless	1		0.92				-	
aqua								
light green								
green								
dark green								
blue								
brown								
red								
TABLEWARE								
FLAT GLASS								
UNDIAGNOSTIC								
TOTAL	1		0.92				-	

M21 Level 1	sherds	complete	weight (g)	neck/lip	base	diagnostic fragment	MNV	% MNV
CONTAINER								
colourless	7		9.0				1	50.0
aqua								
light green								
green								
dark green								
blue								
brown	9		25.0	1	1	1	1	50.0
red								
TABLEWARE								
FLAT GLASS								
UNDIAGNOSTIC								
TOTAL	16		34.0			1	2	100.0

M21 Level 2	sherds	complete	weight (g)	neck/lip	base	diagnostic fragment	MNV	% MNV
CONTAINER								
colourless	15		21.0	1			1	33.3
aqua								
light green								
green								
dark green								
blue								
brown	15		24.0				1	33.3
red								
TABLEWARE	1		2.0				1	33.3
FLAT GLASS								
UNDIAGNOSTIC								
TOTAL	31		71.0				3	99.9

M21 Level 3	sherds	complete	weight (g)	neck/lip	base	diagnostic fragment	MNV	% MNV
CONTAINER								
colourless	62		129.0				-	-
aqua								
light green								
green	6		5.0				1	33.3
dark green								
blue								
brown	10	1	72.0			1	2	66.6
red								
TABLEWARE	2		2.0				-	
FLAT GLASS								
UNDIAGNOSTIC								
TOTAL	80		208.0			1	3	99.9

M21 Level 4	sherds	complete	weight (g)	neck/lip	base	diagnostic fragment	MNV	% MNV
CONTAINER								
colourless	104		282.0			2	3	42.86
aqua	1		11.0			1	1	14.29
light green	3		32.0		1		1	14.29
green	2		2.0				1	14.29
dark green								
blue	1		1.0				1	14.29
brown	10		18.0				-	
red							1	
TABLEWARE	2		5.0				-	
FLAT GLASS	14		25.0					
UNDIAGNOSTIC								
TOTAL	137		376.0		1	3	8	100.0

M21 Level 5	sherds	complete	weight (g)	neck/lip	base	diagnostic fragment	MNV	% MNV
CONTAINER								
colourless	113		545.0			7	-	
aqua								
light green	9		115.0				-	
green	9		15.0				-	
dark green								
blue								
brown	18		69.0				-	
red								
TABLEWARE								
FLAT GLASS	30		26.0					
UNDIAGNOSTIC								
TOTAL	179		770.0			7	-	

M22 Level 1	sherds	complete	weight (g)	neck/lip	base	diagnostic fragment	MNV	% MNV
CONTAINER							-	
colourless	14		30.0					
aqua								
light green								
green								
dark green								
blue								
brown	13		39.0				-	
red								
TABLEWARE	3		8.0				-	
FLAT GLASS	1		1.0					
UNDIAGNOSTIC								
TOTAL	31		147.0				-	

M22 Level 2	sherds	complete	weight (g)	neck/lip	base	diagnostic fragment	MNV	% MNV
CONTAINER								
colourless	42		59.0				-	
aqua								
light green								
green	2		2.0				-	
dark green								
blue	1		1.0				-	
brown	6		9.0				-	
red								
TABLEWARE	3		6.0				-	
FLAT GLASS	42		23.0					
UNDIAGNOSTIC								
TOTAL	96		100.0				-	

M22 Level 3	sherds	complete	weight (g)	neck/lip	base	diagnostic fragment	MNV	% MNV
CONTAINER								
colourless	57		79.0		1		1	100.0
aqua								
light green								
green	3		9.0				-	
dark green								
blue								
brown	6		12.0				-	
red								
TABLEWARE	1		3.0				-	
FLAT GLASS	10		5.0					
UNDIAGNOSTIC								
TOTAL	77		108.0				1	100.0

M22 Level 4	sherds	complete	weight (g)	neck/lip	base	diagnostic fragment	MNV	% MNV
CONTAINER								
colourless	155		486.0	4	4		4	80.0
aqua								
light green								
green	5		21.0				-	
dark green	4		7.0				1	20.0
blue								
brown	20		63.0				-	
red								
TABLEWARE	1		2.0				-	
FLAT GLASS	10		12.0					
UNDIAGNOSTIC								
TOTAL	195		591.0	4	4		5	100.0

M22 Level 5	sherds	complete	weight (g)	neck/lip	base	diagnostic fragment	MNV	% MNV
CONTAINER								
colourless	112		615.0	4	3	1	4	57.14
aqua								
light green								
green	6		34.0				-	
dark green	1		9.0				-	
blue	2		2.0	1	1		1	14.29
brown	7		9.0				-	
red	1		2.0				1	
TABLEWARE	3		52.0			1	2	28.57
FLAT GLASS	9		28.0					100.0
UNDIAGNOSTIC								
TOTAL	141		751.0	5	4		8	

L14-15 Level 1	sherds	complete	weight (g)	neck/lip	base	diagnostic fragment	MNV	% MNV
CONTAINER								
colourless	13		4.0				-	
aqua								
light green								
green								
dark green								
blue								
brown	5		5.0				-	
red								
TABLEWARE								
FLAT GLASS								
UNDIAGNOSTIC								
TOTAL	18		9.0				-	

L14-15 Level 2	sherds	complete	weight (g)	neck/lip	base	diagnostic fragment	MNV	% MNV
CONTAINER								
colourless	3		1.0				-	
aqua								
light green								
green								
dark green								
blue								
brown	3		1.0				-	
red								
TABLEWARE								
FLAT GLASS								
UNDIAGNOSTIC								
TOTAL	6		2.0				-	

L14-15 Level 4	sherds	complete	weight (g)	neck/lip	base	diagnostic fragment	MNV	% MNV
CONTAINER								
colourless	1		0.1				-	
aqua								
light green								
green								
dark green								
blue								
brown	1		0.1				-	
red								
TABLEWARE								
FLAT GLASS								
UNDIAGNOSTIC								
TOTAL	2		0.2				-	

APPENDIX D: METAL ANALYSIS

The Rietvley metal assemblage was recovered from Auger Tests 2 and 4 from all levels of the excavated squares (M21, M22 and L14-15).

ANALYTICAL PROTOCOLS

The metal was dry-brushed and sorted by square and by level. A complete inventory of identifiable items is provided below (Table D1) with the majority falling into domestic (15.5%) and construction (75.4%) related categories. Undiagnostic ferrous metal (1520.25 g) was weighed and discarded, a practice in keeping with the minimum curation standards promulgated by the Society for Historical Archaeology (http://www.sha.org).

COMMENTS

- The aluminium ring pull from a cold drink can provides a TPQ of 1962 (Miller et al 2000:17). These pulls were replaced by fixed pulls in the 1990s.
- The crown closures provide a TPQ of 1892.
- The cartridge cases are identified as a .22 calibre casing (M21/4) and two unidentified cartridges (M21/4 and M22/5). The unidentified cartridge from M21/4 is broken. The cartridge from M22/5 is 55 mm in length with a maximum diameter of 13 mm. The headstamps on both cartridges are corroded and could not be identified in more detail. The cartridges may result from hunting and/or recreational activities.

TABLE D1: RIETVLEY METAL

PROVENIENCE	AT2	AT4	M21/1	M21/2	M21/3	M21/4	M21/5	M22/1	M22/2	M22/3	M22/4	M22/5	L14-15/1	L14-15/2	L14-15/3	L14-15/4	TOTAL
HOUSEHOLD																	**22**
aluminium screw-cap			1				1										1
aluminium ring-pull				1					1								2
aluminium tube				1			2				1						4
crown cap							1				3	1					5
drawing pin					1												1
light bulb													1				1
safety- pin							1										1
tin can (fragment)					7												7
CONSTRUCTION																	**107**
nail (ferrous)	1			1	10	13	12		5	9	12	18	2	2	4		89
nail (non-ferrous)				1													1
nut								1									1
peg					2	2				1					1		6
washer				1						1					1		3
wire (miscellaneous)									1		4	1			1		7
MISCELLANEOUS																	**2**
container (lid)											1						1
hook												1					1
MUNITIONS																	**3**
cartridge case						2						1					
UNIDENTIFIED (ferrous)			3										1				**4**
UNIDENTIFIED (non-ferrous)				1		1						2					**4**
TOTAL	**1**	**-**	**4**	**6**	**20**	**16**	**16**	**1**	**7**	**11**	**20**	**23**	**4**	**2**	**7**	**-**	**142**
UNDIAGNOSTIC (weight in g)	8.84	12.85	55.43	66.02	161.23	109.97	96.13	12.0	80.13	190.41	216.94	216.96	28.38	89.24	162.93	12.79	**1520.25**

APPENDIX E: BEAD ANALYSIS

The Rietvley beads (n = 8) were recovered from the middle and lower levels of the excavated squares M21 and M22.

ANALYTICAL PROTOCOLS

The Rietvley beads were analysed following the protocols that have become conventional in South African archaeology (Wood 2008a 2008b; Wood et al 2009). This system deviates in minor ways from North American models but is tailored for local circumstance and variability and ensures the inter-site comparability necessary for longer-term pattern recognition and interpretation.

After cleaning, the beads were sorted and analysed using standardised criteria. This data is summarised in Table E1. The Rietvley assemblage includes seven glass beads and one plastic or resin bead of unknown manufacture. Six types are represented.

Method of manufacture

Two of the Rietvley beads are drawn, two are wound, two are prosser-moulded and one is of unknown manufacture.

Shape

This category records the general morphology of the beads.

Cornerless hexagonal: drawn, tubular beads, hexagonal or heptagonal in shape with the corners removed by grinding.
Cylinder: drawn beads, reheated to achieve a rounded profile (central section may be straight).
Oblate: drawn beads, reheated to achieve a smooth, rounded profile with a diameter greater than the length. This category is reserved for uniform, well-formed beads.
Tubular: drawn beads with parallel sides; the ends may be treated (reheated and slightly rounded or smoothed) or untreated (chopped and uneven).
Bicone: drawn and wound beads that are bisymmetrical relative to the perforation.
Annular: wound, ring-shaped beads with extremely large perforations; shape varies from uniform to irregular.
Sphere: round, wound beads (or more rarely drawn) with a length roughly equal to the diameter.
Sub-sphere: wound beads that do not present visually as perfectly round but with a length and diameter of close equivalence or with a diameter greater than length.
Oval: elongated sphere, rounded profile with a length greater than diameter.

End treatment

This category, which is most pertinent to drawn beads, indicates whether, and to what extent, a chopped bead was reheated after cutting. If left untreated the bead presents with roughly cut, uneven edges. Mild heating causes rounded edges on tubular beads; moderate heating produces ‘slumping’ and some shape modification (rounded, cylinder beads), while intense

heating (which must be carefully controlled) results in smoothly rounded and uniform oblates. All beads (drawn, wound and moulded) may also be subjected to grinding to smooth the ends or, in the case of moulded beads, to remove the seams.

Diameter and length

Maximum diameter and length measurements were recorded in millimetres using digital callipers.

Patina

Levels of patination were recorded as absent, light, medium, heavy, very heavy, iridescent or a combination of these.

Diaphaneity

The light transmission properties of the Schoemansdal beads were described following Wood's (2005, 2008b) elaboration of the standard levels of transparency, translucency and opaqueness. Wood's modified system permits the description of nuances in assemblages dominated by small, monochrome beads and has proved useful for distinguishing beads from different series (Wood 2005).

Diaphaneity	Description
transparent	objects can be clearly seem through glass
transparent-translucent	glass is slightly cloudy (often due to bubbles)
translucent-transparent	glass is cloudy but light passes easily through bead
translucent	light passes through entire bead
translucent-opaque	glow of light from most of bead
opaque-translucent	slight glow of light at edges of bead
opaque	no light seen through edge of bead

Surface

The surface condition of beads was recorded, where relevant, as shiny, dull, crazed or pitted.

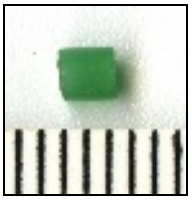
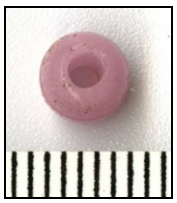
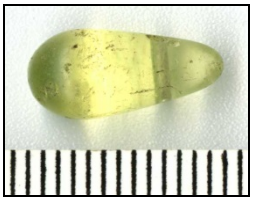
Structure

Simple	undecorated beads made of a single layer of glass
Compound	undecorated beads made of two or more layers of glass
Complex	simple beads with added decoration
Compound-Complex	compound beads with added decoration

Colour

The condition of the beads is good and the lack of patination facilitated accurate colour identification. Munsell colours were designated under natural light.

TABLE E1: RIETVLEY BEADS*

 n = 2	Provenience: M21/5 and M22/4 Glass: drawn tube (chopped) Structure: simple Diaphaneity: translucent-transparent (patina absent) Diameter: 2.39 (M21/5 and 2.6 (M22/24) Length: 2.61 (M21/5) and 3.03 (M22/4) Colour: green (Aqua 7.5G 5/6)
 n = 1	Provenience: M21/4 Glass: wound sub-sphere Structure: simple Diaphaneity: opaque (patina absent) Diameter: 5.88 Length: 4.58 Colour: cobalt (Royal Blue 7.5PB 2/10)
 n = 2	Provenience: M21/4 and M22/3 Glass: wound faceted bicone Structure: simple Diaphaneity: translucent (patina absent) Diameter: 4.77 (M21/4) and 4.42 (M22/3) Length: 5.36 (M21/4) and 5.07 (M22/3) Colour: red (Ruby 2.5R 3/10)
 n = 1	Provenience: M22/3 Glass: prosser-moulded Structure: simple Diaphaneity: opaque (patina absent) Diameter: 6.29 Length: 5.49 Colour: blue (Light Navy 5.0PB 4/4)
 n = 1	Provenience: M22/5 Glass: prosser-moulded Structure: simple Diaphaneity: opaque-translucent (patina absent) Diameter: 5.51 Length: 4.98 Colour: pink (Pale Pink 10RP 8/4)
 n = 1	Provenience: M22/5 Plastic/Resin: unknown Structure: simple Diaphaneity: transparent (patina absent) Diameter: 6.03 Length:13.05 Colour: yellow (Citron 10.0Y 7/5)

* Scale in mm

APPENDIX F: BUTTON ANALYSIS

The Rietvley buttons (n = 3) were all recovered from the lowest level (Level 5) of the excavated squares M21 and M22. The provenience and details are tabled below (Table F1).

COMMENTS

The buttons are all clothing related. The plastic shanked button is probably associated with female attire while the metal button is more likely to be associated with male attire. It is of some interest that all of the buttons were recovered from the lowest level of the excavation. Oral testimonies for the farm indicate that the resident farmer was widowed soon after the birth of his second son (Chris Steyn: 2014: personal communication) and it is likely that a significant change in domestic arrangements occurred after the death of Katrina Whiteman (nee Viljoen).

TABLE F1: RIETVLEY BUTTTONS*

	Provenience: M21/5 Clear plastic, shanked Embossed floral design
	Provenience: M21/5 Metal, four-hole
	Provenience: M22/5 Synthetic , four-hole

* scale in mm

APPENDIX G: BOTANICAL ANALYSIS

The Rietvley botanical finds comprise charcoal, peach pips (whole and fragmented) and pieces of charred corn cob. The provenience and details are tabled below (Table G1).

TABLE G1: RIETVLEY BOTANICAL FINDS

PROVENIENCE	CHARCOAL (weight in g)	CORN COB (weight in g)	PEACH PIP (weight in g)
surface collection		1.88	1.88
M21/1			
M21/2		0.76	1.82
M21/3	0.15	0.28	5.48
M21/4	0.53	2.53	0.61
M21/5	0.23	0.12	1.83
M22/1			1.98
M22/2		0.55	0.83
M22/3		0.29	0.44
M22/4	0.22	0.5	0.63
M22/5		0.53	
L14-15/1	0.16	1.86	
L14-15/2		36.52	
L14-15/3	1.41	28.26	
L14-15/4		0.12	
TOTAL	**2.7**	**74.2**	**13.68**

APPENDIX H: MISCELLANEOUS FINDS

A diverse array of miscellanea (Table H1) were cleaned and sorted into broad categories based upon material of manufacture and/or possible function. The provenience and details are tabled below (Table H1).

COMMENTS

- The foil fragments (4.75 g) derive from chocolate and sweet wrappers and are silver, gold, silver & gold and silver & pink in colour. Foil sweet wrappers were first used in 1921 (Birkholtz 2015: 114) and provide a TPQ for the lowest levels of the excavation.
- The threaded closure recovered from L14-15/3 compares favourably with glue tube closures and may be associated with a craft glue tube recovered from M21/5.
- The toy recovered from M21/4 is identified as Bashful, one of the seven dwarfs from the fairy-tale *Snow White and the Seven Dwarfs*, and may derive from a Christmas Cracker or a lucky/fun packet for children.

- The carbon 'pencils' are reminiscent of slate pencils but derive from the inside of batteries. Their recurrent presence (n = 15) is curious. They can certainly be used for writing or marking and several exhibit rounded tips suggesting that they were indeed used in this way. They may have served a functional purpose around the farm or they may simply signal the presence of young children with a penchant for 'taking things apart'.

TABLE H1: RIETVLEY MISCELLANEOUS FINDS

PROVENIENCE	AT2	AT4	M21/1	M21/2	M21/3	M21/4	M21/5	M22/1	M22/2	M22/3	M22/4	M22/5	L14-15/1	L14-15/2	L14-15/3	L14-15/4	TOTAL
PLASTIC																	**24**
closure (threaded)				1			1					1			1		4
comb							1					1					2
handle											1						1
toy						1											1
tube							1										1
miscellaneous (unid.)			1	1	3	2	4		1		2			1			15
RUBBER																	**5**
shoe sole								1				1					2
miscellaneous (unid.)							1		1		1						3
HANDCRAFTS																	**7**
fabric						1											1
netting							1										1
nylon string								1									1
nylon (miscellaneous)									1								1
thread				1					1								2
wool							1										1
CARBON 'PENCILS'			2	1		1	3	3		3	2						**15**
FOIL (weight in g)			1.15	0.02	0.53	0.01	0.63	0.17	0.53	0.2	1.13					0.38	**4.75**
BRICK														4			**4**
WHETTING STONE							1										**1**
OCHRE				1													**1**
TOTAL	**-**	**-**	**3**	**5**	**3**	**5**	**14**	**5**	**4**	**3**	**6**	**3**	**-**	**5**	**1**	**-**	**57**

APPENDIX I: TITLE DEED OF RIETVLEY 320 IS, PORTION 3

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Deeds Office Property

RIETVLEY, 320, 3 (REMAINING EXTENT) (MPUMALANGA)

GENERAL INFORMATION

Deeds Office	MPUMALANGA
Date Requested	2013/01/31 11:24
Information Source	DEEDS OFFICE
Reference	-

PROPERTY INFORMATION

Property Type	FARM
Farm Name	RIETVLEY
Farm Number	320
Portion Number	3 (REMAINING EXTENT)
Local Authority	GOVAN MBEKI LOCAL MUNICIPALITY
Registration Division	IS
Province	MPUMALANGA
Diagram Deed	T158/1909
Extent	337.4037H
Previous Description	LG1102/1965
LPI Code	T0IS00000000032000003

OWNER INFORMATION

Owner 1 of 1

Person Type	COMPANY
Name	SASOL SYNFUELS PTY LTD
Registration Number	197900273507
Title Deed	T143990/2003
Registration Date	2003/10/30
Purchase Price (R)	355,750
Purchase Date	2003/04/11
Share	
Microfilm Reference	2004 0014 1228
Multiple Properties	NO
Multiple Owners	NO

Vishanta Maharaj
Commissioner of Oaths
Attorney of the High Court R.S.A
Ex Officio
29 van Riebeeck
Secunda
Tel: 017 619 2331

Ek sertifiseer 'n afskrif van die oorspronklike dokument aan my getoon.
I certify a true copy of the original submitted to me.

2014 -02- 12

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ENDORSEMENTS (13)

#	Document	Description	Institution	Amount (R)	Microfilm
1	K1868/1979S	CONTRACT SERVITUDES/MINERALS/LEASES/PC	-	UNKNOWN	1990 1084 0837
2	K2756/1974RM	CONTRACT SERVITUDES/MINERALS/LEASES/PC	WHITEMAN JAMES STEPHANUS	UNKNOWN	-
3	K2914/1992S	CONTRACT SERVITUDES/MINERALS/LEASES/PC	-	UNKNOWN	1992 0514 4167
4	K40/2012S	CONTRACT SERVITUDES/MINERALS/LEASES/PC	-	UNKNOWN	-
5	K44/1980S	CONTRACT SERVITUDES/MINERALS/LEASES/PC	-	UNKNOWN	-
6	K548/2011S	CONTRACT SERVITUDES/MINERALS/LEASES/PC	-	UNKNOWN	-
7	K547/2011S	CONTRACT SERVITUDES/MINERALS/LEASES/PC	-	UNKNOWN	-
8	K721/1984S	CONTRACT SERVITUDES/MINERALS/LEASES/PC	-	UNKNOWN	1984 0601 0215
9	K7225/2003RM	CONTRACT SERVITUDES/MINERALS/LEASES/PC	WHITEMAN WILLEM JOHANNES	UNKNOWN	2004 0014 1245
10	K7260/1993S	CONTRACT SERVITUDES/MINERALS/LEASES/PC	-	UNKNOWN	1993 1173 2178
11	VA1102/2011	LOST COPY	SASOL SYNFUELS PTY LTD	UNKNOWN	-
12	CL-EAST VAAL DC	-	-	UNKNOWN	-
13	INFO FROM PRETORIA DEEDS REGIS	-	-	UNKNOWN	-

HISTORIC DOCUMENTS (1)

#	Document	Description	Owner	Amount (R)	Microfilm
1	T6851/1974	TRANSFER	WHITEMAN WILLEM JOHANNES	UNKNOWN	2004 0014 1216

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Vishanta Thamburan
Commissioner of Oaths
Attorney of the High Court R.S.A
Ex Officio
29 van Riebeeck
Secunda
Tel: 017 619 2331

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I certify a true copy of the original submitted to me.

2014 -08- 12

APPENDIX J: CONTEXT SHEET (EXAMPLE)

SASOL FAD SECUNDA RIETVLEY 320 IS

Context/Feature	Grid #	Layer/Level
STP #	Excavator(s)	Date

Depth from surface

Opening Elevations				
NE:	SE:	SW:	NW:	C:
Closing Elevations				
NE:	SE:	SW:	NW:	C:

Sieve

None 5 mm 2 mm 1 mm WET / DRY

Soil description

Colour		Texture	
Munsell		Consistency	

Drawing No.	Photograph No. and description

Artefacts

	Bag #	General Comments
Ceramic (imported)		
Ceramic (local)		
Glass		
Bone		
Metal		
Beads		
Botanical		
Charcoal		
Munitions		
Human remains		
Stone		
Other		

TOTAL		
Number of buckets screened		

Sketch / artefact recording grid

LEGEND				
North:				
Scale:				

Notes and interpretive comments

APPENDIX K: STRUCTURE DOCUMENTATION SHEET

EXAMPLE

EXTERIOR DIMENSIONS AND DETAILS	
WALLS / DIMENSIONS – North – East – South – West	
FOUNDATION	
ROOFING	
REPAIRS	
ALTERATIONS	
ADDITIONAL COMMENTS	

ROOM A	MEASUREMENTS	
WALLS – North – East – South – West – Diagonal NE-SW – Diagonal SE-NW		
WALL THICKNESS – North – East – South – West		
PIERCINGS		
Window(s)	north wall	south wall
height from floor		
height		
width		
Description:		
Doorway(s)	north wall	west wall
height	-	-
width		
Description:		
FLOORING		
EMBELLISHMENTS		
Ceiling		
Cornicing		
Skirting		
Wall finish		
ADDITIONAL COMMENTS		