

PREPARED FOR:
RIO TINTO EXPLORATION

**A PHASE I HERITAGE IMPACT ASSESSMENT (HIA) STUDY
FOR RIO TINTO'S EXPLORATION ACTIVITIES ON VARIOUS
F FARMS IN THE CHAPUDI PROJECT AREA NORTH OF THE
SOUTPANSBERG IN THE LIMPOPO PROVINCE OF SOUTH
AFRICA**

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April 2007
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EXECUTIVE SUMMARY

The Phase I HIA study for various farms in the Chapudi Project Area north of the Soutpansberg revealed the following types and ranges of heritage resources as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999):

- At least three graveyards (GY01-GY03).
- Seven sites with single graves and one site with at least two graves (G01-G08).
- Two historical houses (HH01, HH02).
- A stone walled site possibly dating from the Historical Period (HS01).
- A small enclosure which may date from the Late Iron Age (LIA01) as well as Late Iron Age remains associated with Prince's Hill (LIA02) which, however, has largely been destroyed when a farm homestead was constructed on the hill some year ago.
- Scatters of stone tools (AT, MST, ST01-ST06).
- Remains from the recent past (RP01- RP03).

All these heritage resources were geo-referenced, tabled and mapped while their level of significance is indicated (Figure 2; Tables 1-5).

All graveyards and graves can be considered to be of high significance and are protected by various laws. Legislation with regard to graves includes the National Heritage Resources Act (No 25 of 1999) whenever graves are older than sixty years. The act also distinguishes various categories of graves and burial grounds. Other legislation with regard to graves includes those which apply when graves are exhumed and relocated, namely the Ordinance on Exhumations (No 12 of 1980) and the Human Tissues Act (No 65 of 1983 as amended).

All buildings and structures older than sixty years are protected by Section 34 of the National Heritage Resources Act (No 25 of 1999) and may not be affected (demolished, altered, renovated, removed) before the Provincial Heritage Resources Authority (PHRA) has approved such alterations.

Stone walled sites qualify as archaeological sites which may date from the Historical Period. All archaeological (historical) and paleontological sites are protected by Section 35

of the National Heritage Resources Act (No 25 of 1999). This site may not be affected (demolished, altered, renovated, removed) before the Provincial Heritage Resources Authority (PHRA) has approved such alterations.

Late Iron Age sites also qualify as archaeological sites, some of which may date from the Historical Period. All archaeological (historical) and paleontological sites are protected by Section 35 of the National Heritage Resources Act (No 25 of 1999). This site may not be affected (demolished, altered, renovated, removed) before the Provincial Heritage Resources Authority (PHRA) has approved such alterations.

Stone tools qualify as archaeological objects or are part of archaeological sites. All archaeological and paleontological sites are protected by Section 35 of the National Heritage Resources Act (No 25 of 1999). This site may not be affected (demolished, altered, renovated, removed) before the Provincial Heritage Resources Authority (PHRA) has approved such alterations.

The remains from the recent past do not qualify as historical significant remains. These remains therefore mostly are insignificant as they are not sixty years or older.

None of these heritage resources have been affected by Rio Tinto's exploration activities in the past. However, if these heritage resources may be affected by future mining activities appropriate mitigation measures have to be applied to these heritage resources. Such mitigation measures have to be determined by an archaeologist accredited with the Association for Southern African Professional Archaeologists (ASAPA) in conjunction with the Limpopo Provincial Heritage Resources Authority.

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1 INTRODUCTION

Rio Tinto is completing exploration work in the Chapudi Project Area (named after the farm Chapudi 752) which covers a number of farms directly to the north of the Soutpansberg in the Limpopo Province of South Africa (Figure 1).

This document contains the first report on the results of a Phase I Heritage Impact Assessment (HIA) study for the farms Chapudi 752, Albert 686, Sterkstroom 689, Bergwater 697, Rochdale 700, Coniston 699 and Prince's Hill 704 in the Chapudi Project Area. The intention is to extent the Phase I HIA study in order to cover the remaining farms in the Chapudi Project Area where Rio Tinto has conducted exploration activities since 2003.

Parts of the Limpopo Province, such as Polokwane, Mokopane, Phalaborwa, the Blouberg Mountains, Louis Trichardt (Makhado), the Steelpoort valley and areas to the north and south of the Soutpansberg have been explored for archaeological remains in the past. These explorations have shown that the Limpopo Province has a rich archaeological heritage comprised of remains dating from the prehistoric and the historical past.

Prehistoric and historical remains in the Limpopo Province therefore reflect the 'national estate' as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999) (see Box 1).

Box 1: Types and ranges of heritage resources (the ‘national estate’) as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999)

The National Heritage Resources Act (No 25 of 1999) outlines the following types and ranges of heritage resources that qualify as part of the national estate, namely:

- (a) places, buildings structures and equipment of cultural significance;
- (b) places to which oral traditions are attached or which are associated with living heritage;
- (c) historical settlements and townscapes;
- (d) landscapes and natural features of cultural significance;
- (e) geological sites of scientific or cultural importance;
- (f) archaeological and paleontological sites;
- (g) graves and burial grounds including-
 - (i) ancestral graves;
 - (ii) royal graves and graves of traditional leaders
 - (iii) graves of victims of conflict
 - (iv) graves of individuals designated by the Minister by notice in the Gazette;
 - (v) historical graves and cemeteries; and
 - (vi) other human remains which are not covered by in terms of the Human Tissue Act, 1983 (Act No 65 of 1983)
- (h) sites of significance relating to the history of slavery in South Africa;
- (i) moveable objects, including -
 - (i) objects recovered from the soil or waters of South Africa, including archaeological and paleontological objects and material, meteorites and rare geological specimens;
 - (ii) objects to which oral traditions are attached or which are associated with living heritage;
 - (iii) ethnographic art and objects;
 - (iv) military objects;
 - (v) objects of decorative or fine art;
 - (vi) objects of scientific or technological interest; and
 - (vii) books, records, documents, photographs, positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act, 1996 (Act No 43 of 1996).

The National Heritage Resources Act (Act No 25 of 1999, Sec 3) also distinguishes nine criteria for places and objects to qualify as ‘part of the national estate if they have cultural significance or other special value ...’. These criteria are the following:

- (a) its importance in the community, or pattern of South Africa’s history;
- (b) its possession of uncommon, rare or endangered aspects of South Africa’s natural or cultural heritage;
- (c) its potential to yield information that will contribute to an understanding of South Africa’s natural or cultural heritage;
- (d) its importance in demonstrating the principal characteristics of a particular class of South Africa’s natural or cultural places or objects
- (e) its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
- (f) its importance in demonstrating a high degree of creative or technical achievement at a particular period;
- (g) its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;
- (h) its strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa;
- (i) sites of significance relating to the history of slavery in South Africa

2 TERMS OF REFERENCE

Rio Tinto's exploration activities in the Chapudi Project Area in the Limpopo Province of South Africa require that a Phase I HIA study has to be conducted for the Project Area. This requirement is set out in Section 38 of the National Heritage Resources Act (No 25 of 1999) while Rio Tinto upheld cultural heritage management systems (programmes) for their operations world-wide which amongst others require that clearance surveys be conducted for areas where development may occur. (A clearance survey can be equated with what has been termed a Phase I HIA study [survey] in this report).

The aims with this Phase I HIA survey are:

- To establish whether any of the types and ranges of heritage resources ('national estate') as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999) do occur in the Chapudi Project Area.
- To indicate the level of significance of these heritage resources as they may be affected by exploration activities or by mining activities which may follow after the exploration activities have been completed.

Exploration activities in the Chapudi Project Area have coincided with Phase I heritage surveys which concentrated on drill pads and other small developments associated with exploration activities such as the establishment of base camps and access roads. However, this Phase I HIA survey for the Chapudi Project area covered a much larger surface area and subsequently provides an overview of the types and ranges of heritage resources that occur in the Project Area. This baseline heritage information has to be considered when coal mining commences in the Chapudi Project Area in the near future.

3 METHODOLOGY

This Phase I survey was conducted by means of consulting archaeological data bases; doing a survey with a vehicle and on foot; studying maps of the Project Area; doing a brief survey of literature and by means of consulting spokespersons living in certain parts of the Project Area.

3.1 Archaeological data bases

Archaeological data bases kept at institutions such as African Window and the South African Heritage Resources Authority (SAHRA) (Cape Town [national] and Polokwane [provincial]) was consulted in order to establish if any heritage resources of significance occur in or near the Project Area.

3.2 Survey with a vehicle and on foot

The Project Area was surveyed with a vehicle while selected spots which the archaeologist deemed necessary to investigate was surveyed on foot. The enormous surface area covered by the Project Area made it impossible to survey the whole of the Project Area on foot.

3.3 Maps

The 1: 50 000 topographical maps and the 1: 250 000 maps outlining the various farms which is covered by the Project Area were also studied for any possible heritage resources as well as outstanding topographical or natural features which may be associated with archaeological sites dating from particular periods from the past.

3.4 Survey of literature

A brief survey of literature relating to the pre-history and cultural history of the broader Project Area was undertaken in order to contextualise the Project Area on a regional scale (see Part 4, 'Contextualising the Project Area' and Part 8, 'Select Bibliography').

3.5 Spokespersons

Spokespersons living in the Project Area were consulted with regard to the possible presence of graves and other conspicuous heritage resources (see Part 9, 'Spokespersons Consulted').

3.6 Assumptions and limitations

It is possible that this Phase I HIA study may have missed heritage resources in the Project Area as heritage sites may occur in thick clumps of vegetation while others may lie below the surface of the earth and may only be exposed once development commences.

3.7 Chance finds

If any heritage resources of significance is exposed during exploration or other development activities the South African Heritage Resources Authority (ASAPA) should be notified immediately, all development activities must be stopped and an archaeologist accredited with the Association for Southern African Professional Archaeologist (ASAPA) should be notify in order to determine appropriate mitigation measures for the discovered finds. This may include obtaining the necessary authorisation (permits) from SAHRA to conduct the mitigation measures.

Box 2. Terminologies that may be used in this report

The Heritage Impact Assessment (HIA) referred to in the title of this report includes a survey of heritage resources as outlined in the National Heritage Resources Act, 1999 (Act No 25 of 1999) (See Box 1).

Heritage resources (cultural resources) include all human-made phenomena and intangible products that are the result of the human mind. Natural, technological or industrial features may also be part of heritage resources, as places that have made an outstanding contribution to the cultures, traditions and lifestyles of the people or groups of people of South Africa.

The term 'pre-historical' refers to the time before any historical documents were written or any written language developed in a particular area or region of the world. The historical period and historical remains refer, for the Project Area, to the first appearance or use of 'modern' Western writing brought to Louis Trichardt by the first Colonists who settled in this area after c. 1840.

The term 'relatively recent past' refers to the 20th century. Remains from this period are not necessarily older than sixty years and therefore may not qualify as archaeological or historical remains. Some of these remains, however, may be close to sixty years of age and may, in the near future, qualify as heritage resources.

It is not always possible, based on observations alone, to distinguish clearly between archaeological remains and historical remains, or between historical remains and remains from the relatively recent past. Although certain criteria may help to make this distinction possible, these criteria are not always present, or, when they are present, they are not always clear enough to interpret with great accuracy. Criteria such as square floor plans (a historical feature) may serve as a guideline. However, circular and square floors may occur together on the same site.

The term 'sensitive remains' is sometimes used to distinguish graves and cemeteries as well as ideologically significant features such as holy mountains, initiation sites or other sacred places. Graves in particular are not necessarily heritage resources if they date from the recent past and do not have head stones that are older than sixty years. The distinction between 'formal' and 'informal' graves in most instances also refers to graveyards that were used by colonists and by indigenous people. This distinction may be important as different cultural groups may uphold different traditions and values with regard to their ancestors. These values have to be recognised and honoured whenever graveyards are exhumed and relocated.

The term 'Stone Age' refers to the prehistoric past, although Late Stone Age peoples lived in South Africa well into the historical period. The Stone Age is divided into an Earlier Stone Age (3 million years to 150 000 thousand years ago) the Middle Stone Age (150 000 years to 40 000 years ago) and the Late Stone Age (40 000 years to 200 years ago).

The term 'Late Iron Age' refers to the period between the 17th century and the 19th century and can therefore include the historical period.

Mining heritage sites refer to old, abandoned mining activities, underground or on the surface, which may date from the pre-historical, historical or the relatively recent past.

The term 'study area', or 'Project Area' refers to the area where the developer wants to focus its development activities (refer to plan).

Phase I studies refer to surveys using various sources of data in order to establish the presence of all possible types of heritage resources in any given area.

Phase II studies include in-depth cultural heritage studies such as archaeological mapping, excavating and sometimes laboratory work. Phase II work may include the documenting of rock art, engraving or historical sites and dwellings; the sampling of archaeological sites or shipwrecks; extended excavations of archaeological sites; the exhumation of bodies and the relocation of graveyards, etc. Phase II work may require the input of specialists and requires the co-operation and approval of SAHRA.

4 CONTEXTUALISING THE PROJECT AREA

4.1 The larger region

The Chapudi Project Area is part of the Bushveldt whose elevation varies between 750m to 1 400m above sea level. Annual rainfall varies from 350mm in the west to just over 600mm in parts in the north-east whilst the rainfall on the Soutpansberg is more than 2 000mm in places. Summers are hot and winters comparatively mild while frost rarely occurs.

The Bushveldt is characterised by well-grassed plains which are punctuated with dense clusters of trees and tall savannah shrubs. The grasses are tall and rank and turn yellow and brown in winter. Trees and shrubs varies from *acacia*, *combretum*, *karee* and *boekenhout* in the south to the umbrella *acacia*, *mopane*, knobthorn, leadwood, kiaat and tamboti further north. The Boabab dominates the far northern plains of the Bushveldt.

Whilst the Crocodile, Matlabas, Mokolo and others rivers drain the western part of the Bushveldt, the Olifants and Letaba Rivers flow towards the Indian Ocean in the eastern part of the Bushveldt. The Sand and Hout Rivers join each other to the south of the Soutpansberg and cut through the mountain together with the railway line running to Zimbabwe in the far north. The Luvuvhu, Klein Letaba and Mutale Rivers drain the eastern part of the Soutpansberg.

Three mountain ranges dominate the Bushveldt, namely the Drakensberg in the east with the Strydpoort mountain range as a western spur drifting towards Mokopane. The Waterberg is a huge mountainous expanse between Thabazimbi in the west and Mokopane in the east. The Soutpansberg is the north-eastern most mountain range in South Africa.

The Soutpansberg runs from the west towards the east directly north of Louis Trichardt (Makhado) for approximately 130 kilometres. Its width varies from 18km to 32km and there are several peaks with an elevation that exceed 1 400m above sea level, including Hanglip (2 550m) and Lejuma (1 753m), although the average elevation is 600m above sea level. The name of the mountain is derived from a large pan located near the western extremity of the mountain. The pan is fed by a strong spring and served as a source of salt from time immemorial.

The plateau of the Soutpansberg is fertile and well watered. It is suitable for the cultivation of a large range of crops. The rainfall is as high as 2 000mm in places. The plateau and many ravines are forested with indigenous trees such as the fern tree, Cape chestnut, ironwood, stinkwood, and yellowwood. These forests are supplemented by large tracks of exotic pine and blue gum plantations.

The Soutpansberg is crossed by the Sand River together with the railway line running to the north. The 'Great North Road' cuts through Wyllies Poort, to the north of Louis Trichardt (Makhado). This 'pass' was built after the older road higher up the mountain was washed away several times. The new road includes the two longest tunnels (Verwoerd tunnels) in the former Transvaal (450m and 274m). The poort was named for Lieutenant C. H. Wyllie who staked out the first pass in 1904.

4.2 The Chapudi Project Area

Rio Tinto's exploration activities stretch across a swath of land covering a number of farms directly to the north of the western part of the Soutpansberg. The Project Area runs from Chapudi 752, Albert 686 and Sterkstroom 689 in the west to the farms Kalkbuilt 709 near the N1 in the east. The Project Area mostly runs across level land with some of the foothills of the Soutpansberg in the south. Towards the middle of the Project Area, on farms such as Bushy Rises and Prince's Hill, the area becomes more undulating with ridges and low mountains.

The Project Area is bisected by the Sand River which runs through the Soutpansberg from the south to the north. The soutpan, where salt has been processed by man from the earliest times is located near the western end of the berg. The town of Louis Trichard (Makhado) which was established by the Voortrekkers is nestled against the southern slope of the Soutpansberg while the small villages of Vivo and Buysdorp occur along the western end of this berg.

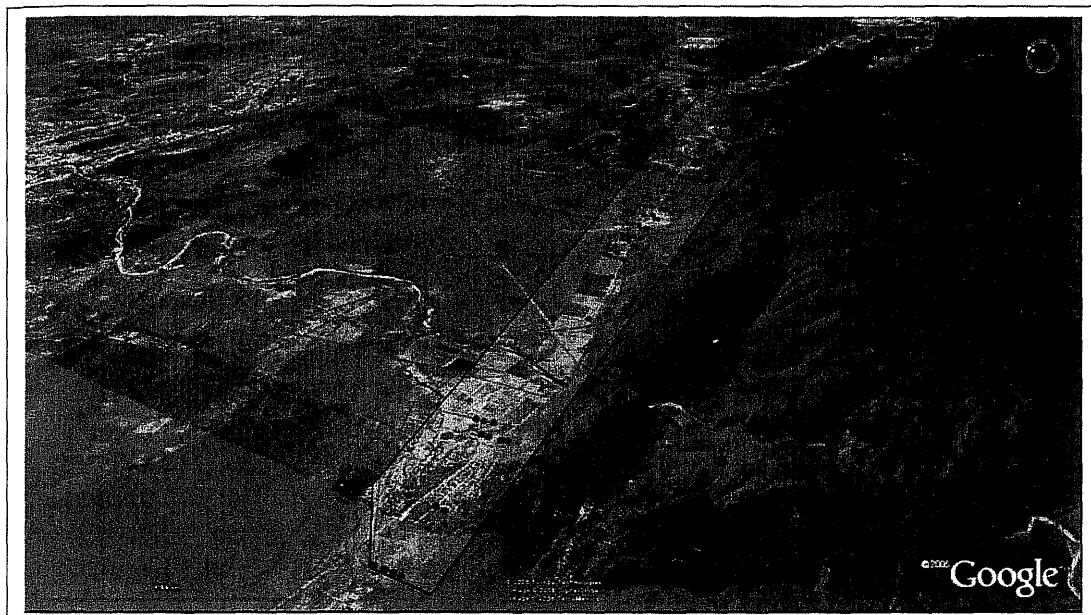


Figure 1- Aerial view of the Chapudi Project Area north of the Soutpansberg: from Chapudi 752 and Albert 686, nearest in the west to Kalkbuilt 709 in the far east (above).

4.3 Stone Age sites

Stone Age sites are marked by stone artefacts that are found scattered on the surface of the earth or as parts of deposits in caves and rock shelters. The Stone Age is divided into the Early Stone Age (this covers the period from 2.5 million years ago to 250 000 years ago), the Middle Stone Age (this refers to the period from 250 000 years ago to 22 000 years ago) and the Late Stone Age (the period from 22 000 years ago to 300 years ago).

These Stone Ages can be divided into different 'cultural' periods, each of which is characterised by specific hominids, artefact types and lifestyles. These cultural periods existed under different climatic conditions and did not necessarily occur in each of the different regions of South Africa at the same time.

The Late Stone Age is associated, amongst other things, with rock paintings and engravings done by the San, the Khoi Khoi and, in more recent times, by Negroid (Iron Age) farmers.

Numerous rock paintings have been recorded by researchers in the Soutpansberg whilst stone tools dating from the Early Stone Age (Acheul) and Middle Stone Age have been discovered during this survey in the Chapudi Project Area.

4.4 Iron Age remains

The Iron Age is associated with the first Bantu-Negroid agro-pastoralists who lived in semi-permanent villages and who practiced metal working during the last two millennia. The Iron Age is usually divided into the Early Iron Age (this covers the 1st millennium AD) and the Later Iron Age (this covers the first 880 years of the 2nd millennium AD).

The Soutpansberg region is well known for the presence of large numbers of Iron Age sites which date from the Early Iron Age, the Early-Late Iron Age and the Late Iron Age. Many of the Early-Late Iron Age sites in the region can be related to ancient Sotho clans which became absorbed by the Venda whilst most of the Late Iron Age and Historical Sites can be associated with Venda clans.

The Early Iron Age site known as Klein Afrika which dated from AD300 used to exist on the farm Marius 732 but has been destroyed by agricultural activities in more recent times.

Stone walled sites dating from the Early-Late Iron Age and from the Late Iron Age do occur in the larger project area. These include the stone walled sites on Verdun 535 and Verulam 540 to the north of the Chapudi Project Area. Other known stone walled sites in the larger project area include stone walled terraces on Franshoek 726 and Fenton 733.

4.5 The historical period

The two Voortrekker parties of Hans van Rensburg and Louis Trichardt reached the southern slopes of the Soutpansberg in 1836. As the two parties had quarreled along the way the Van Rensburg party moved eastwards in search of a route to Lourenço Marques (Maputo) in Mocambique.

Trichardt and his party, however, remained near the present site of Louis Trichardt from May 1836 to August 1837. They planted crops and explored the country northwards to Zimbabwe and eastwards in search of the lost Van Rensburg party.

In September 1837 Trichardt continued his search for a route to Delagoa Bay (Maputo), a harbor that would be free from British control. They reached their destination seven months later after two and a half months were spent on

crossing the Drakensberg mountain range with nine wagons of which the back wheels were removed in order to slide down the Drakensberg escarpment.

The Voortrekker party of Hendrik Potgieter was the next to arrive in the Soutpansberg. This party of Boers came from the malaria infested Ohrigstad further to the south-east. The community flourished for a while. A church and fort were built and Portuguese merchants from Mocambique opened stores. The main merchandise was ivory. Potgieter died in 1852 and Stephanus Schoeman took over as commandant. He renamed the village Schoemansdal for himself in 1855. At that time there were 278 houses and approximately 1 800 residents. The village attracted an ever growing number of ivory hunters and traders who bartered with skins and ivory although gunrunning also grew in importance.

On 15 July 1867 the local Venda attacked the town and put it to the torch. The Voortrekkers fled to Pietersburg and Marabastad. During the next twenty years the territory remained in the hands of the Venda chief, Makhado. Mpefu, however, was defeated by the Zuid Afrikaansche Republiek (ZAR) close to where Louis Trichardt had pitched his first camp in 1836. The farms Bergvlei and Rietvlei, named for Louis Trichardt, were proclaimed in February 1899.

During the Anglo Boer War the British authorities removed the women and children from Louis Trichardt to safety in Pietersburg. The Venda now avenged their earlier defeats and razed the village to the ground. After the war the town was rebuild from scratch and was granted municipal status in 1934.

Heritage resources of significance in the area include:

- The partly restored Schoemansdal open-air museum, 12 km to the west of Louis Trichardt was opened in 1933.
- Near the Schoemansdal Museum are San rock paintings.

- Fort Hendrina, an iron structure behind the municipal offices is one of three mobile forts that were used by the ZAR in skirmishes with local populations.
- The Ben Lavin Nature Reserve to the south of Makhado was established in 1976 to preserve antelope and other game indigenous to the area.
- The Albasini Dam is located 20km to the east of Makhado and is named for the Portuguese trader Jõao Albasini who bartered ivory from the Voortrekkers at Schoemansdal and transported it to Delagoa Bay.

Other historical villages close to Makhado in the Eskom Project Area include Mara, Buysdorp and Vivo.

The village of Mara is located 30km to the west of Louis Trichardt. The name 'Mara' is probably derived from the biblical name 'Mara' which means 'bitter water', thus referring to the quality of the underground water in the neighborhood.

The village of Vivo lies in a gap between the Soutpansberg and the Blouberg. The name is probably a corruption of the Sotho word 'phefo' ('cold wind') which refers to the wind that blows between the two mountains throughout the year.

The village of Buysdorp came into being after this piece of land was denoted by Paul Kruger to the descendants of Coenraad de Buys, an outlaw and adventurer who was well known in the Western and Northern Transvaal during the 19th century, in recognition of the assistance this group gave to the Voortrekkers of the Soutpansberg. Buysdorp is located approximately 15km to the east of Vivo, near the western end of the Soutpansberg.

5 THE PHASE I HERITAGE IMPACT ASSESSMENT STUDY

5.1 Types and ranges of heritage resources

The Phase I HIA study for various farms in the Chapudi Project Area north of the Soutpansberg revealed the following types and ranges of heritage resources as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999):

- At least three graveyards (GY01-GY03).
- Seven sites with single graves and one site with at least two graves (G01-G08).
- Two historical houses (HH01, HH02).
- A stone walled site possibly dating from the Historical Period (HS01).
- A small enclosure which may date from the Late Iron Age (LIA01) as well as Late Iron Age remains associated with Prince's Hill (LIA02) which, however, has largely been destroyed when a farm homestead was constructed on the hill some year ago.
- Scatters of stone tools (AT, MST, ST01-ST06).
- Remains from the recent past (RP01-RP03).

All these heritage resources were geo-referenced, tabled and mapped while their level of significance is indicated (Figure 2; Tables 1-5).

The Phase I HIA study is now briefly discussed while some of the heritage resources are illuminated with photographs.

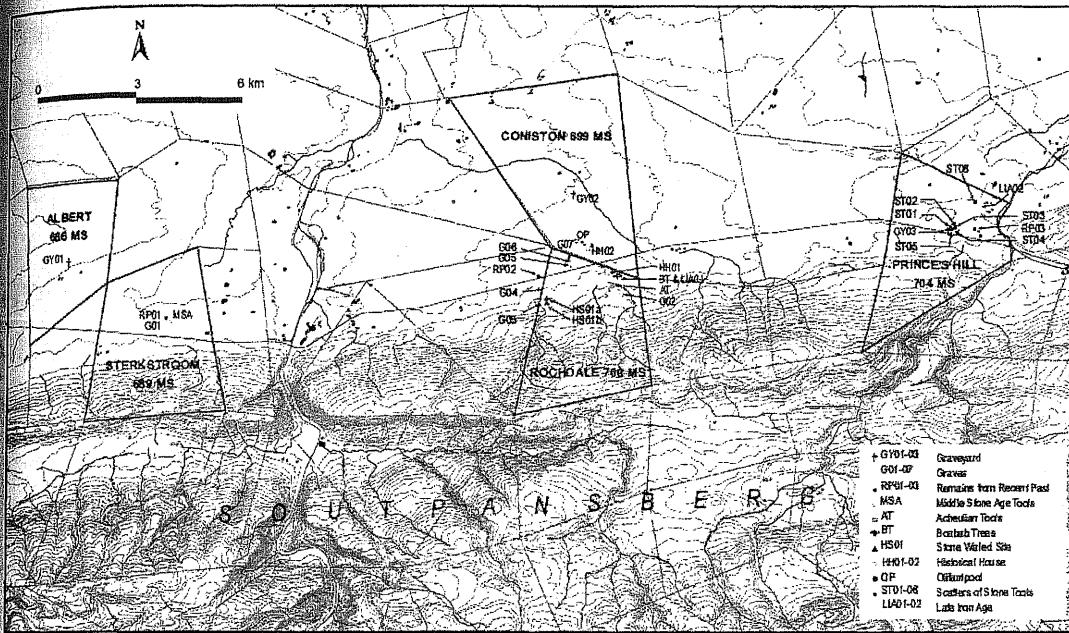


Figure 2- Heritage resources on various farms in the Chapudi Project Area north of the Soutpansberg. Note the presence of graveyards, graves, historical houses, scatters of stone tools and remains from the recent past (above).

Figure 2- Heritage resources on various farms in the Chapudi Project Area north of the Soutpansberg. Note the presence of graveyards, graves, historical houses, scatters of stone tools and remains from the recent past (above).

5.2 Graveyards

Three graveyards, one on each on the farms Albert 686, Coniston 699 and Prince's Hill 704 occurs in the Project Area (Figure 2; Tables 1, 4, 5). These graveyards are the following:

5.2.1 Graveyard 01

GY01 is located on Albert 686 and contains approximately 18 graves most of which are stacked with stones. One grave is fitted with a corrugated iron 'head stone' with the following inscription:

- 'Mapiku David, ??shivha'.

The only grave with a granite headstone bears the following inscription:

- 'In memory of Maria Tshifularo Mariba. Sadly missed by your children Keinboy, Daniel and Anna. Rest in Peace. 11-11-19-09, 24-09-1995'.

5.2.2 Graveyard 02

GY02 is located on Coniston 699 and consists of approximately 13 graves of which the majority are edged with bricks or with cement. A single grave with a granite slab and head stone bears the following inscription:

- 'Pharoli Phophi. *1932-04-13, †2002-01-25, 2002-02-02. Ri do vha Humbula Misi Yothe Vha Edel Nga Mulalo'.

A cement head contains the following inscription:

- 'Jim Seshokas Died June 1958'.

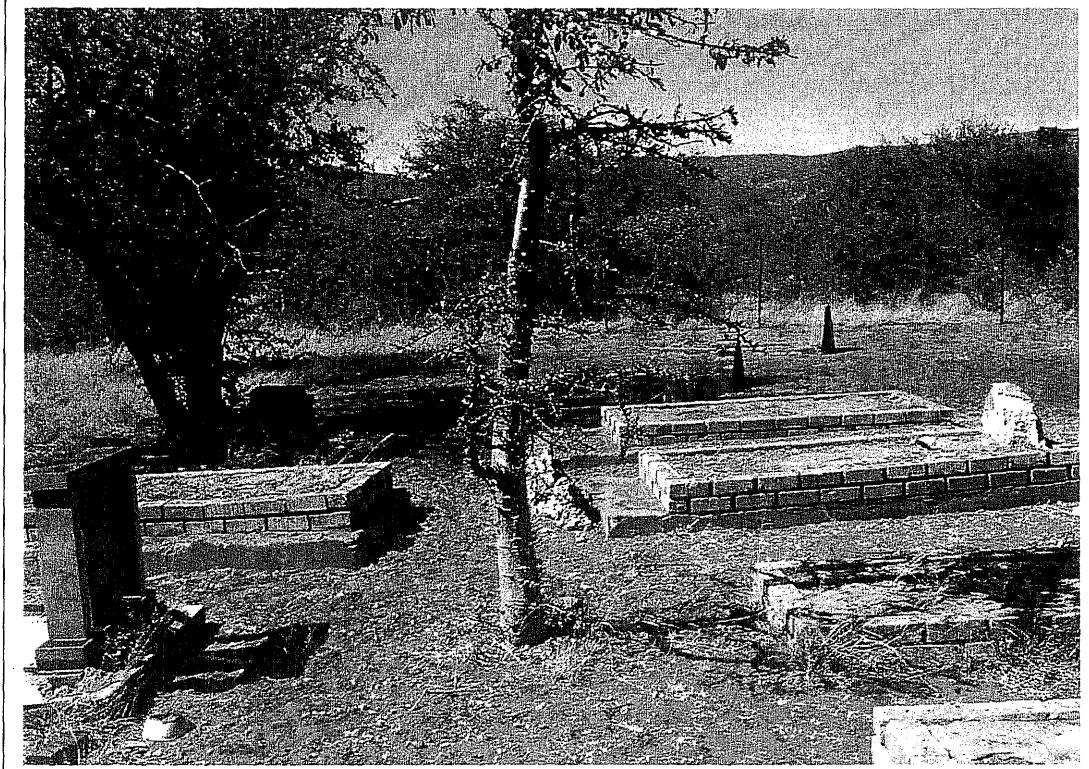


Figure 3- GY02 on Coniston 699 contains approximately thirteen graves (above).

5.2.3 Graveyard 03

This graveyard on Prince's Hill 704 consists of approximately 21 graves the majority of which are fitted with granite slabs and tombstones. Inscriptions on some of these headstones read as follow:

- 'Murwamuila, loving memory of Vho Tshinakaho Makatu. *1915-04-15, †2003-08-21, 2003-08-30. Psalm 23'
- 'Vho Piet Tshipfuralo. In loving memory of our beloved father. *1910-08-25, †2003-01-18, 2003-01-18'
- 'In memory of my husband and our father Mutshono John. Rest in Peace. Ramuhala'

- 'Sameul Tsotsi Maduwa, *1937-09-15 †1991-06-10. Kha Vha Edele Nga Mulalo Vha Humbulwa Nga Mufumakadzi Na Vhana.
- 'Ramuhala Mashudu Joseph *1959-12-06 †2003-09-06, 2003-09-20 Safe in the arms of Jesus'.



Figure 4- GY03 on Prince's Hill 704 has approximately eighteen graves most of which are decorated with granite slabs and headstones (above).

ALBERT 686	COORDINATES	BRIEF DESCRIPTION	SIGNIFICANCE
Graveyard (GY01) with approx 18	22° 53.124' 29°.33.336'	Informal graveyard with approx 18 graves. Most stacked with stones. One with corrugated iron 'head stone'	HIGH

Table 1- An informal graveyard (GY01) on the farm Albert 686 in the Chapudi Project Area north of the Soutpansberg (above).

5.2.2 Graves

Seven sites with graves occur in the Project Area. Six of these consist of single graves while one grave site has two graves, namely (Figure 2; Tables 2, 3, 4):

5.2.2.1 Grave 01

G01 is located in the midst of remains dating from the recent past (RP01) on the farm Sterkstroom 689. The grave is unmarked and covered with stones (Figure 2; Table 2).



Figure 5- G01 is the grave of Sameul Ratsekani on Rochdale 700 near a Boabab tree (above).

5.2.2.2 Graves 02-07

Graves 02 to G07 are located on the farm Rochdale 700 and include the following (Figure 2; Tables 3, 4, 5):

- The grave of Sameul Ratsekani (G02) is located near a Boabab tree and is edged with cement and fitted with a cement headstone with his name inscribed on it.
- G03 is marked by a heap of stones which are located in a stone walled site (HS01) which probably dates from the Historical Period.
- G04 is another heap of stones located on a bare patch of land.
- G05 belongs to one of the children of Dora Menenje and is covered with stones.
- G06 and G07 are heaps of stones located near the border fence between Rochdale 700 and Coniston 699.

STERKSTROOM 689	COORDINATES	BRIEF DESCRIPTION	SIGNIFICANCE
Single grave (G01)	22° 54.119' 29° 34.857'	Single grave located in the midst of remains from the recent past (RP01)	HIGH
Remains from the recent past (RP01)	22° 54.119' 29° 34.857'	Remains of dwellings comprising upright foundation stones across a small piece of land. Associated with grave (G01)	LOW
Middle Stone Age tools (MSA)	22° 54.055' 29° 34.941'	A scatter of MSA tools exposed by road building activities.	HIGH

Table 2- Heritage resources on Sterkstroom 689 in the Chapudi Project Area north of the Soutpansberg (above).

5.2.2.3 Grave 08

G08 is located on Coniston 699 and is edged with cement. It has a headstone which is composed of three cement bricks but bears no decipherable inscription. It is possible that this grave may date from the 1970's.



Figure 6- G03 is marked by a heap of stones in the midst of a stone walled site which probably dates from the Historical Period (HS01) (above).

5.2.3 Historical Houses

Two historical houses occur in the Project Area, namely (Figure 2; Tables 3 & 4):

5.2.3.1 Historical House 01

This house on Rochdale 700 consists of a square residence with at least three verandas on three sides of the house. Although HH01 has been renovated it is older than sixty years and probably dates from the 1930's or 1940's.

HH01's walls are constructed with brick and cement and its pitched roof is covered with corrugated iron sheet.

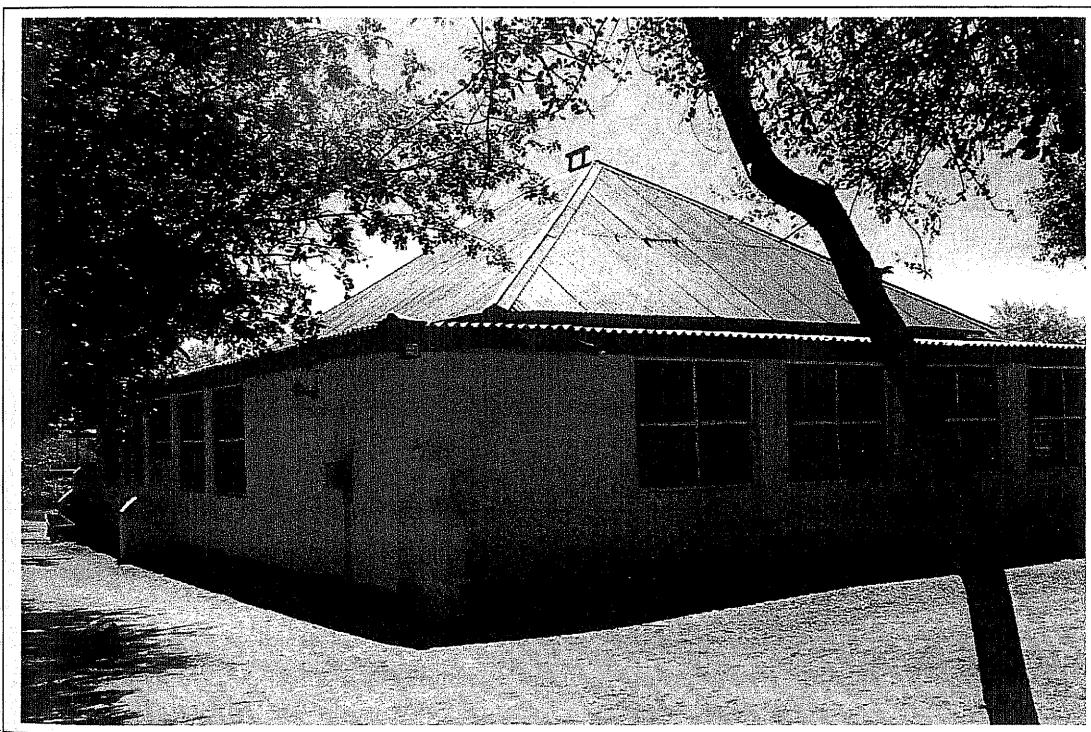


Figure 7- A historical house (HH01) on Rochdale 700 in the Chapudi Project Area (above). Although altered, this house is older than sixty years.

5.2.3.2 Historical House 02

This farm residence on Coniston 699 is an elongated structure with two verandas along the two long sides of the house. Although this residence has been renovated it is older than sixty years and probably dates from the 1940's or 1950's.

HH01's walls are constructed with brick and cement and its pitched roof is covered with corrugated iron sheet.

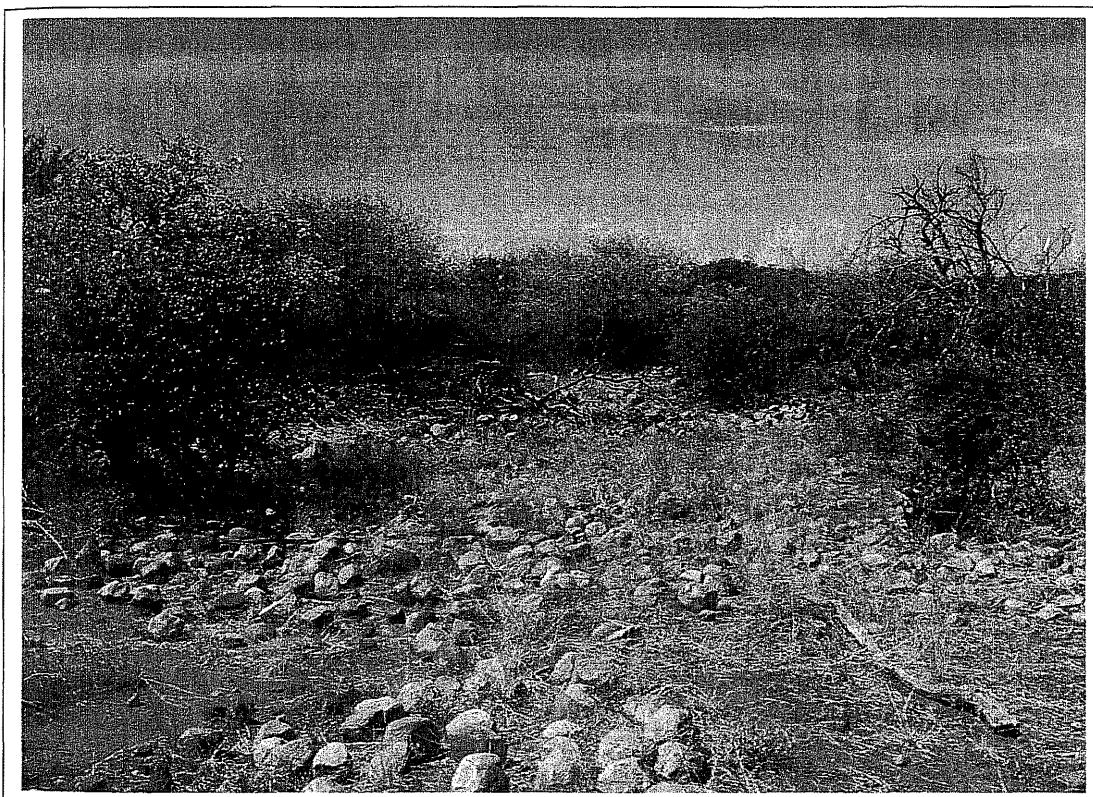


Figure 8- A stone walled site which may date from the Historical Period (HS01) on Rochdale 700 (above).

ROCHDALE 700	COORDINATES	BRIEF DESCRIPTION	SIGNIFICANCE
Single grave (G02)	22° 53.631' 29° 41.843'	Grave of Samoel (<i>sic</i>) Ratsekani	HIGH
Acheulian tools (AT)	22° 53.492' 29° 41.722'	Randomly occurring Acheulian stone tools along the foot of a sandstone ridge	LOW
Boabab trees (BT)	22° 53.434' 29° 41.786'	One of three extraordinary big Boabab trees in close proximity of each other	
Small stone enclosure (LIA01)	22° 53.434' 29° 41.786'	Small enclosure built with stone possibly used to pen small stock along the foot of a sandstone ridge. May date from the Late Iron Age or historical period.	LOW
Single grave (G03)	22° 53.760' 29° 40.554'	Unmarked grave in a possible historical site (HS01)	HIGH
Possible single grave (G04)	22° 53.566' 29° 40.642'	Unmarked possible grave located on a bare piece of land	HIGH (if grave)
Stone walled site (HS01)	22° 53.704' 29° 40.625'....1 22° 53.772' 29° 40.628'....2	Site comprised of stone walls, some of which are circular. Associated with potsherds, pieces of glass, coin, pocket knife and tin plate. Probably older than sixty years.	LOW-MEDIUM
Historical House (HH01)	22° 53.321' 29° 41.637'	Farm homestead with square core and at least three verandas added to sides of the house. Probably dates from the 1930's to the 1940's.	MEDIUM-HIGH
Single grave (G05)	22° 53.183' 29° 41.091'	Grave of one of Dora Manenje's children	HIGH
Two graves (G06 & G07)	22° 53.154' 29° 41.109'	Two graves covered with stones next to border fence	HIGH
Remains from the recent past (RP02)	22° 53.364' 29° 40.586'	Remains of dwellings consisting of upright foundation (calcrete) stones. Spread over a limited surface area	LOW

Table 3- Heritage resources on Rochdale 700 in the Chapudi Project Area north of the Soutpansberg (above).

5.2.4 A stone walled site from the Historical Period

A stone walled site occurs on a low sandstone ridge on Rochdale 700. The site is constructed with low stone walls, some circular in ground plan and covers a considerable surface (Figure 2; Table 3). Site HP01 is associated with potsherds, piece of glass and tin plate. Site HP01 probably dates from the early part of the 20th century and as such can be classified as a historical site.

5.2.5 Late Iron Age remains

The following remains dating from the Late Iron Age were observed in the Project Area (Figure 2; Tables 3 & 5):

- A small enclosure occurs along the foot of a low sandstone ridge on Rochdale 700 and may have been used to pen small stock. It is possible that this structure date from the Late Iron Age (LIA01) although it may have been used during the Historical Period as well.
- A Late Iron Age stone walled site used to exist on top of a hill on the farm Prince's Hill (LIA02). However, this site was largely destroyed when a farm homestead was constructed on top of the hill some year ago.

5.2.6 Scatters of stone tools

Randomly occurring scatters of stone tools were observed in the Project Area, namely (Figure 2; Tables 2, 3 & 5):

- A few MSA tools were exposed by road building activities on Sterkstroom 689.
- A few Acheulian flake tools were observed along the foot of a low sandstone ridge on Rochdale 700.
- Large numbers of stone tools occur between large concentrations of quartzite pebbles along a low rise on Prince's Hill 704.

CONISTON 699	COORDINATES	BRIEF DESCRIPTION	SIGNIFICANCE
Single grave (G07)	22° 52.836' 29° 41.150'	Single grave probably dating from the 1970's.	HIGH
Olifantpoot (OP)	22° 52.820' 29°.41.159'	Unique plant.	
Graveyard (GY02)	22° 52.114' 29°.41.117'	Informal graveyard with approx 13 graves. Most edged with bricks or with cement. One with granite headstone.	HIGH
Historical House (HH02)	22° 52.945' 29°.41.345'	Elongated house with verandas on both long ends. Probably dates from the 1940's or 1950's	MEDIUM-HIGH

Table 4- Heritage resources on Coniston 699 in the Chapudi Project Area north of the Soutpansberg (above).

5.2.7 Remains from the recent past

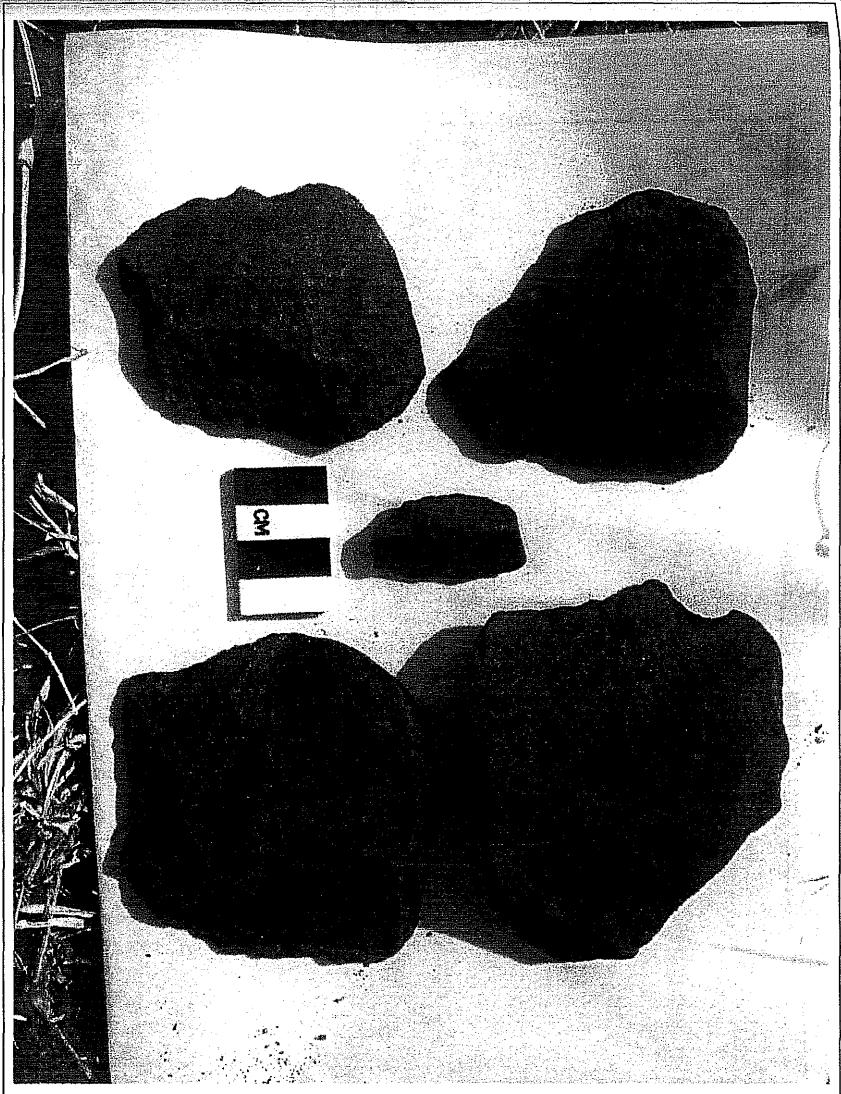
Remains dating from the recent past have been observed at the following places in the Project Area (Figure 2; Tables 1, 3 & 5):

- Remains of dwellings consisting of upright foundation stones (Site RP01) occur across a small piece of land on Sterkstroom 689. These remains represent a small village which was composed of several dwellings constructed with clay walls and possibly with grass roofs.
- Upright standing calcrete and quartz stones that used to be part of the lower walls of dwellings occur on Rochdale 700 (Site RP02). This village was small in size.
- The dilapidated remains of mud dwellings occur along a dirt road on Prince's Hill 704 (Site RRP03). These dwellings were occupied by Venda families currently living further to the east, but who are interred in GY03 on Prince's Hill 704.

PRINCE'S HILL	COORDINATES	BRIEF DESCRIPTION	SIGNIFICANCE
704			
Scatters of stone tools (ST)	22° 52.608' 29° 46.929'.....1 22° 52.538' 29° 46.976'.....2 22° 52.598' 29° 46.989'.....3 22° 52.615' 29° 46.989'.....4 22° 52.633' 29° 46.934'.....5 22° 52.222' 29° 47.307'.....6	Pebble street along the slope of a low rise. Large numbers of stone tools occur amongst these natural occurring stones	HIGH
Remains from the recent past (RP03)	22° 52.633' 29°.47.083'	Remains of mud houses along a dirt road	
Graveyard (GY03)	22° 52.654' 29°.46.887'	Graveyard with approx 21 graves. Most graves are decorated with granite slabs and headstones with inscriptions	HIGH
Prince's Hill. Late Iron Age site (LIA02)	22° 52.285' 29°.47.373'	Late Iron Age site on Prince's Hill demolished when modern residence was constructed.	MEDIUM-HIGH

Table 5- Heritage resources on Prince's Hill 704 (above).

Figure 8- Scattered stone tools from Prince's Hill 704 (above).



6 THE SIGNIFICANCE OF THE HERITAGE RESOURCES

The following types and ranges of heritage resources were discovered in the Chapudi Project Area, namely:

- Graveyards and graves.
- Historical houses.
- A stone walled site which date from the Historical Period.
- Late Iron Age remains.
- Scatters of stone tools.
- Remains from the recent past.

None of these heritage resources have been affected by Rio Tinto's exploration activities in the past. However, these remains may be affected by future mining activities. Consequently, the levels of significance of these heritage resources are outlined.

If any of these heritage resources may be affected by future mining activities appropriate mitigation measures have to be applied to these heritage resources. Such mitigation measures have to be determined by an archaeologist accredited with the Association for Southern African Professional Archaeologists (ASAPA) in conjunction with the Limpopo Provincial Heritage Resources Authority.

6.1 Graves and Graveyards

All graveyards and graves can be considered to be of high significance and are protected by various laws. Legislation with regard to graves includes the National Heritage Resources Act (No 25 of 1999) whenever graves are older than sixty years. The act also distinguishes various categories of graves and burial grounds. Other legislation with regard to graves includes those which apply when graves

are exhumed and relocated, namely the Ordinance on Exhumations (No 12 of 1980) and the Human Tissues Act (No 65 of 1983 as amended).

(Graveyards can be exhumed and relocated. The exhumation of human remains and the relocation of graveyards are regulated by various laws, regulations and administrative procedures. This task is undertaken by forensic archaeologists or by reputed undertakers who are acquainted with all the administrative procedures and relevant legislation that have to be adhered to whenever human remains are exhumed and relocated. This process also includes social consultation with a 60 days statutory notice period for graves older than sixty years. Permission for the exhumation and relocation of human remains have to be obtained from the descendants of the deceased (if known), the National Department of Health, the Provincial Department of Health, the Premier of the Province and the local police).

6.2 Historical houses

All buildings and structures older than sixty years are protected by Section 34 of the National Heritage Resources Act (No 25 of 1999) and may not be affected (demolished, altered, renovated, removed) before the Provincial Heritage Resources Authority (PHRA) has approved such alterations.

6.3 A stone walled site from the Historical Period

Stone walled sites qualify as archaeological sites which may date from the Historical Period. All archaeological (historical) and paleontological sites are protected by Section 35 of the National Heritage Resources Act (No 25 of 1999). This site may not be affected (demolished, altered, renovated, removed) before the Provincial Heritage Resources Authority (PHRA) has approved such alterations.

6.4 Late Iron Age remains

Late Iron Age sites also qualify as archaeological sites, some of which may date from the Historical Period. All archaeological (historical) and paleontological sites are protected by Section 35 of the National Heritage Resources Act (No 25 of 1999). This site may not be affected (demolished, altered, renovated, removed) before the Provincial Heritage Resources Authority (PHRA) has approved such alterations.

6.5 Scatters of stone tools

Stone tools qualify as archaeological objects or are part of archaeological sites. All archaeological and paleontological sites are protected by Section 35 of the National Heritage Resources Act (No 25 of 1999). This site may not be affected (demolished, altered, renovated, removed) before the Provincial Heritage Resources Authority (PHRA) has approved such alterations.

6.6 Remains from the recent past

The remains from the recent past are insignificant.

7 CONCLUSION

The Phase I HIA study for various farms in the Chapudi Project Area north of the Soutpansberg revealed the following types and ranges of heritage resources as outlined in Section 3 of the National Heritage Resources Act (No 25 of 1999):

- At least three graveyards (GY01-GY03).
- Seven sites with single graves and one site with at least two graves (G01-G08).
- Two historical houses (HH01, HH02).
- A stone walled site possibly dating from the Historical Period (HP01).
- A small enclosure which may date from the Late Iron Age (LIA01) as well as Late Iron Age remains associated with Prince's Hill (LIA02) which, however, has largely been destroyed when a farm homestead was constructed on the hill some year ago.
- Scatters of stone tools (AT, MSA, ST01-ST06).
- Remains from the recent past (RP01-RP03).

All these heritage resources were geo-referenced, tabled and mapped while their level of significance is indicated (Figure 2; Tables 1-5).

All graveyards and graves can be considered to be of high significance and are protected by various laws. Legislation with regard to graves includes the National Heritage Resources Act (No 25 of 1999) whenever graves are older than sixty years. The act also distinguishes various categories of graves and burial grounds. Other legislation with regard to graves includes those which apply when graves are exhumed and relocated, namely the Ordinance on Exhumations (No 12 of 1980) and the Human Tissues Act (No 65 of 1983 as amended).

All buildings and structures older than sixty years are protected by Section 34 of the National Heritage Resources Act (No 25 of 1999) and may not be affected

(demolished, altered, renovated, removed) before the Provincial Heritage Resources Authority (PHRA) has approved such alterations.

Stone walled sites qualify as archaeological sites which may date from the Historical Period. All archaeological (historical) and paleontological sites are protected by Section 35 of the National Heritage Resources Act (No 25 of 1999). This site may not be affected (demolished, altered, renovated, removed) before the Provincial Heritage Resources Authority (PHRA) has approved such alterations.

Late Iron Age sites also qualify as archaeological sites, some of which may date from the Historical Period. All archaeological (historical) and paleontological sites are protected by Section 35 of the National Heritage Resources Act (No 25 of 1999). This site may not be affected (demolished, altered, renovated, removed) before the Provincial Heritage Resources Authority (PHRA) has approved such alterations.

Stone tools qualify as archaeological objects or are part of archaeological sites. All archaeological and paleontological sites are protected by Section 35 of the National Heritage Resources Act (No 25 of 1999). This site may not be affected (demolished, altered, renovated, removed) before the Provincial Heritage Resources Authority (PHRA) has approved such alterations.

The remains from the recent past do not qualify as historical significant remains.

None of these heritage resources have been affected by Rio Tinto's exploration activities in the past. However, if these heritage resources may be affected by future mining activities appropriate mitigation measures have to be applied to these heritage resources. Such mitigation measures have to be determined by an archaeologist accredited with the Association for Southern African Professional

Archaeologists (ASAPA) in conjunction with the Limpopo Provincial Heritage Resources Authority.

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9 SPOKESPERSONS CONSULTED

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Mr. Brain Kruger. Foreman, Rochdale farm.

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