

*SPECIALIST REPORT*  
**PHASE 1 ARCHAEOLOGICAL / HERITAGE IMPACT ASSESSMENT FOR 76ha  
AGRICULTURAL (ORCHARDS) DEVELOPMENT ON THE FARM  
KROKODILSPRUIT 248 JT,  
WHITE RIVER, MPUMALANGA PROVINCE**

**REPORT PREPARED FOR  
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**APRIL 2022**

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## **EXECUTIVE SUMMARY**

A Phase 1 Heritage Impact Assessment (HIA) regarding archaeological and other cultural heritage resources was conducted on 76ha of *the farm KROKODILSPRUIT 248JT*, near White River. The study area is situated on topographical map 1:50 000, 2530BD NELSPRUIT, which is in the Mpumalanga Province. This area falls under the jurisdiction of the Ehlanzeni District Municipality, and Mbombela Local Municipality.

The National Heritage Resources Act, no 25 (1999)(NHRA), protects all heritage resources, which are classified as national estate. The NHRA stipulates that any person who intends to undertake a development, is subjected to the provisions of the Act.

The applicant, DANROC (Pty) Ltd., in co-operation with RHENGU Environmental Services, is requesting an agricultural development for macadamia orchards. An archaeological and heritage impact assessment was done for other sections on the same farm, in 2018, and the agricultural development was approved. Large sections on the property were historically cultivated with bluegum plantations (since 1977), and agricultural lands (since 1936). Many drainage lines from the rocky slopes, feed into two main rivers, the Sandspruit and Krokodilspruit, which flow through the farm. The rocky sections on the property are natural and undisturbed with indigenous vegetation cover. The area is zoned as agricultural and no rezoning will take place.

The survey took place during late summer (April 2022), and vegetation was dense and lush. Visibility during the survey was restricted, and therefore some information from the 2018 report was used. The survey in 2018 took place when large sections of the farm were burnt, which made visibility excellent at the time. The farm was historically a commercial farm with large sections of agricultural fields.

All open areas in the study sections were investigated for any archaeological or heritage features, but none was observed during the 2022 survey. No archaeological or heritage features were identified in Sections 1 & 3. The 2018 survey, which covered part of Section 2, revealed fragments of potsherds and lower grinders. No mitigation measures are proposed (see discussion in text). No graves were observed on any of the three sections, during the field investigation. Mr. Josiah Manhique, who accompanied us during the survey, has not encountered any graves in the study areas.

It is recommended that the applicant be made aware that distinct archaeological material or human remains may only be revealed during the development phase. Such sub-surface finds must be assessed by a qualified archaeologist after which, an assessment can be made. Based on the survey and the findings in this report, Adansonia Heritage Consultants state that there are no compelling reasons which may prevent the proposed agricultural development, within the study area, to continue.

**Disclaimer:** *Although all possible care is taken to identify all sites of cultural significance during the investigation, it is possible that hidden or sub-surface sites could be overlooked during the study. Christine Rowe trading as Adansonia Heritage Consultants will not be held liable for such oversights or for costs incurred by the client as a result.*

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- 1) The results of the project;*
- 2) The technology described in any report;*
- 3) Recommendations delivered to the Client.*



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C. Rowe  
APRIL 2022

## CONTENTS

EXECUTIVE SUMMARY	2
DISCLAIMER	3
A. BACKGROUND INFORMATION TO THE PROJECT	5
• Terms of Reference	6
• Legal requirements	6
B. BACKGROUND TO ARCHAEOLOGY AND HISTORY OF THE STUDY AREA	9
C. DESCRIPTION OF AREA TO BE AFFECTED BY DEVELOPMENT	19
D. LOCALITY	24
• Description of methodology	26
• GPS Co-ordinates of perimeters	27
E. DESCRIPTION OF IDENTIFIED SITES	27
F. DISCUSSION ON THE FOOTPRINT OF THE PROPOSED DEVELOPMENT	30
• Summarised identification & cultural significance assessment of affected	30
• Summarised recommended impact management interventions	33
G. STATEMENT OF SIGNIFICANCE & EVALUATION OF HERITAGE RESOURCES IN THE STUDY AREA	35
• Evaluation methods	35
• NHRA	35
• Significance & evaluation	36
H. CONCLUSION	37
REFERENCES	38
<b>MAP 1:</b> 1935 Map of Van Warmelo	17
<b>MAP 2:</b> 1920 Degree Sheet 21	18
<b>MAP 3:</b> Study area of proposed sections	20
<b>MAP 4:</b> Study area Section 1	21
<b>MAP 5:</b> Study area Section 2 & River Crossing	21
<b>MAP 6:</b> Study area Section 3	22
<b>MAP 7:</b> 1936 Aerial map	23
<b>MAP 8:</b> Google image of the wider area	25
<b>MAP 9:</b> Topographical map 1:50 000 (1980)	25
<b>MAP 10:</b> Distribution of all heritage features identified in 2018	28
<b>MAP 11:</b> Google image: Distribution of heritage features	29
<b>Appendix 1:</b> Tracks & Paths	40
<b>Appendix 2:</b> Photographic documentation	42

**PHASE 1 ARCHAEOLOGICAL / HERITAGE IMPACT ASSESSMENT FOR 76ha  
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KROKODILSPRUIT 248 JT, WHITE RIVER, MPUMALANGA PROVINCE**

**A. BACKGROUND INFORMATION TO THE PROJECT**

DANROC (Pty) Ltd, in co-operation with RHENGU Environmental Services, is requesting an agricultural development on natural as well as historically transformed lands on the *farm Krokodilspruit 248JT*, near White River, in Mpumalanga. The development is for three small sections, with a total of 76ha. <sup>1 2</sup>

The farm Krokodilspruit, is situated approximately 8km west of the town of White River. Large sections on the property were bluegum plantations (see Map 3), which were recently converted into agricultural lands (macadamias). The farm originally belonged to a Mr. Webster, who farmed extensively with maize and cattle. He sold the farm in 1941 to Mr. Beckenstrater (the previous owner). The plantations were established during 1977. <sup>3</sup> Aerial maps from 1936 were studied during the previous survey, and showed the sections which were cultivated at the time (see maps 7 & 9). These are situated roughly in the middle of the farm and have been fallow for many years. Many drainage lines are sloping from low hills towards the Sand- and Krokodilspruit which flow from north to south through the farm. Several earth water furrows were constructed by Mr. Webster, to channel water to the cultivated areas in earlier years. The water furrows were lined with concrete during the 1960's. <sup>4</sup> The water furrows are not relevant in the current report, as they fall outside of the study area.

The rocky sections on the property are natural and undisturbed with indigenous vegetation cover and consist of granite outcrops (east, west and sections in the north-east). Most of the rocky sections are in the north-western corner of the farm (see map 9).

Adansonia Heritage Consultants were appointed by RHENGU Environmental Services, to conduct a Phase 1 heritage impact assessment (HIA) on archaeological and other heritage resources which might occur on the three sections (Section 1, 2 & 3). A literature study, relevant to the study area as well as a foot survey was done, to determine that no

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<sup>1</sup> Deacon, AR., Krokodilspruit Screening Report, 2022-03-28.

<sup>2</sup> Personal communication: Mr. R. Kalwa, Rhengu Environmental Services, 2022-03-25.

<sup>3</sup> Personal communication: Mr. P. Beckenstrater, 2018-10-08.

<sup>4</sup> Personal communication: Mr. P. Beckenstrater, 2018-10-08.

archaeological or heritage resources will be impacted upon by the proposed development (See Map 9: topographical map 1:50 000, 2530BD NELSPRUIT).

The aims of this report are to source all relevant information on archaeological and heritage resources within the study area, and to advise the client on sensitive heritage areas as well as where it is viable for the development to take place in terms of the specifications as set out in the National Heritage Resources Act no., 25 of 1999 (NHRA). Recommendations for maximum conservation measures for any heritage resources will also be made. The study area is indicated in maps 1 - 11, & Appendix 1 - 2.

- This study forms part of an EIA, Consultant: RHENGU Environmental Services, Mr. Ralf Kalwa, P.O. Box 1046, Malelane, 1320, Cell: 0824147088 / Fax: 0866858003 / e-mail: rhengu@mweb.co.za.
- Type of development: Agricultural development on *the farm KROKODILSPRUIT 248JT*, White River, Mpumalanga Province.
- The study area consists of natural indigenous vegetation cover as well as historically disturbed or transformed land. The farm has rocky outcrops to the east, west and north-east which slope towards the valley floor where the Sandspruit and Krokodilspruit are situated (see Map 6). The area is zoned as agricultural and no rezoning will take place.
- Location of Province, Magisterial district / Local Authority and Property (farms): The area falls within the Mpumalanga Province under the jurisdiction of the Ehlanzeni District Municipality and Mbombela Local Municipality.
- Land owner & applicant: DANROC (Pty) Ltd, Mr. Warren Hearne.

**Terms of reference:** As specified by section 38 (3) of the NHRA, the following information is provided in this report.

- a) The identification and mapping of heritage resources where applicable;
- b) Assessment of the significance of the heritage resources;
- c) Alternatives given to affected heritage resources by the development;
- d) Plans for measures of mitigation.

**Legal requirements:**

The legal context of the report is grounded within the National Heritage Resources Act no. 25, 1999, as well as the National Environmental Management Act (Act No. 107 of 1998) (NEMA as amended).

- **Section 38 of the NHRA**

This report constitutes a heritage impact assessment investigation linked to the environmental impact assessment required for the development. The proposed development is a listed activity in terms of Section 38 (1) of the NHRA. Section 38 (2) of the NHRA requires the submission of an HIA report for authorisation purposes to the responsible heritage resources agency, (SAHRA).

Heritage conservation and management in South Africa is governed by the NHRA and falls under the overall jurisdiction of the South African Heritage Resources Agency (SAHRA) and its provincial offices and counterparts.

Section 38 of the NHRA requires a Heritage Impact Assessment (HIA) to be conducted by an independent heritage management consultant, for the following development categories:

- The construction of a road, wall, powerline, pipeline, canal or similar form of linear development or barrier exceeding 300m in length;
- Any development or other activity which will change the character of a site: exceeding 5000m<sup>2</sup> in extent;
- the rezoning of a site exceeding 10 000m<sup>2</sup> in extent;

In addition, the new EIA regulation promulgated in terms of NEMA, determines that any environmental report will include cultural (heritage) aspects.

The end purpose of this report is to alert RHENGU Environmental Services as well as the applicant, interested and affected parties about existing heritage resources that may be affected by the proposed development, and to recommend mitigation measures aimed at reducing the risks of any adverse impacts on these heritage resources. Such measures could include the recording of any heritage buildings or structures older than 60 years prior to demolition, in terms of section 34 of the NHRA and also other sections of this act dealing with archaeological sites, buildings and graves.

The NHRA section 2 (xvi) states that a “heritage resource” means any place or object of cultural significance, and in section 2 (vi) that “cultural significance” means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance. Apart from a heritage report assisting a client to make informed development decisions, it also serves to provide the relevant heritage resources authority with the necessary data to perform their

statutory duties under the NHRA. After evaluating the heritage scoping report, the heritage resources authority will decide on the status of the resource, whether the development may proceed as proposed or whether mitigation is acceptable, and whether the heritage resources require formal protection such as Grade I, II or III, with relevant parties having to comply with all aspects pertaining to such a grading.

- **Section 35 of the NHRA**

Section 35 (4) of the NHRA stipulates that no person may, without a permit issued by SAHRA, destroy, damage, excavate, alter or remove from its original position, or collect, any archaeological material or object. This section may apply to any significant archaeological sites that may be discovered. In the case of such chance finds, the heritage practitioner will assist in investigating the extent and significance of the finds and consult with an archaeologist about further action. This may entail removal of material after documenting the find or mapping of larger sections before destruction. Fragments of clay potsherds and lower grinders were observed in Section 2 (during the 2018 survey). See discussion in text.

- **Section 36 of the NHRA**

Section 36 of the NHRA stipulates that no person may, without a permit issued by SAHRA, destroy, damage, alter, exhume or remove from its original position or otherwise disturb any grave or burial ground older than 60 years, which is situated outside a formal cemetery administered by a local authority. It is possible that chance burials might be discovered during development of road infrastructure or agricultural activities. No grave sites were observed during the current survey.

- **Section 34 of the NHRA**

Section 34 of the NHRA stipulates that no person may alters, damage, destroy, relocate etc., any building or structure older than 60 years without a permit issued by SAHRA or a provincial heritage resources authority. No structures or foundations were observed during the current survey.

- **Section 37 of the NHRA**

This section deals with public monuments and memorials but does not apply in this report.



- **NEMA**

The regulations in terms of Chapter 5 of the National Environmental Management Act, (107/1998), provides for an assessment of development impacts on the cultural (heritage) and social environment and for specialist studies in this regard.

## **B BACKGROUND TO ARCHAEOLOGY AND HISTORY OF THE STUDY AREA**

- **Literature review, museum databases & previous relevant impact assessments**

The study area on the *farm KROKODILSPRUIT 248JT*, is located approximately 8km west of White River, turning towards Sabie on the R537.

The wider area is quite rich in archaeological history and the first evidence of ancient mining occurred between 46 000 and 28 500 years ago during the Middle Stone Age. Hematite or red ochre was mined at Dumaneni (near Malelane, approximately 45km south-east of the study area) and is regarded as one of the oldest mines in the world. Iron ore was also mined in the area, and a furnace as well as iron slag was documented.<sup>5</sup>

Bushman (or San) presence is evident in the area as research by rock art enthusiasts revealed 109 sites in the Kruger National Park,<sup>6</sup> and over 100 rock art sites at Bongani Mountain Lodge and its immediate surrounds<sup>7</sup> (south-east of the study area), as well as many sites in the Nelspruit, Rocky's Drift and White River (Legogote). Thirty- one rock art sites were recorded by the author on the Mpumalanga Drakensberg Escarpment, of which three sites are near Sabie. Rock art sites were also recorded in Swaziland.<sup>8 9</sup> The Bushman painters most probably obtained the ochre which was used as a pigment in the paintings, from the Dumaneni ochre mine.<sup>10 11</sup>

History in the wider vicinity is closely connected to the study area and is briefly outlined below. The name Komati appears in historical records for the first time in 1589, in the form *Macomates*.

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<sup>5</sup> Bornman, H., *The Pioneers of the Lowveld*, p. 1.

<sup>6</sup> English, M. Die Rotskuns van die Boesmans in die NKW, in *De Vos Pienaar, U., Neem uit die Verlede*, p. 18-24.

<sup>7</sup> Hampson, et al., The rock art of Bongani Mountain Lodge, SA Archaeological Bulletin 57: p. 15.

<sup>8</sup> Rowe, C. 2009. Heritage Management of Archaeological, Historical and Industrial resources on the Blyde River Canyon Nature Reserve, MA dissertation. Pretoria: UP.

<sup>9</sup> Masson, J. 2008. Views from a Swaziland Cave. *The Digging Stick*, Vol. 25 no 1: 1-3.

<sup>10</sup> Bornman, H. *The Pioneers of the Lowveld*, p. 1.

<sup>11</sup> Masson, J. 2008. Views from a Swaziland Cave. *The Digging Stick*, Vol. 25 no 1: 1-3.

It was recorded by a traveler on board the Portuguese ship Sao Thome, which sailed from Cochin, South India and ran aground on the shores of the *Land of the Makomati*, near Lake Sibayi, in what became known as KwaZulu Natal. The Land of Makomati comprised the entire hinterland as far north as the Limpopo River, as far south as St Lucia, and as far west as the Drakensberg escarpment, therefore the study area is included. It was the trading zone of the Komati gold and ivory traders who had established themselves in Delagoa Bay (which was known, up to the 17<sup>th</sup> century as Makomati), long before the arrival of the first Portuguese in 1498.<sup>12</sup>

Primary and secondary sources were consulted to place the surrounding area in an archaeological context. Ethnographical and linguistic studies by early researchers such as Ziervogel and Van Warmelo shed light on the cultural groups living in the area since ca 1600. Historic and academic sources by Meyer, Voight, Bergh, De Jongh, Evers, Myburgh, Thackeray and Van der Ryst were consulted, as well as historical sources by Makhura and Webb.

Primary sources were consulted from the Pilgrim's Rest Museum Archives for a background on the pre-history and history of the study area. Several circular stone-walled complexes and terraces as well as graves have been recorded in the vicinities of Hazyview<sup>13</sup>, Bushbuckridge, Graskop and Sabie. Clay potsherds and upper as well as lower grinders, are scattered at most of the sites.<sup>14</sup> Many of these occur in caves as a result of the Swazi attacks during the 1900's on smaller groups. The 1972 topographical map show several footpaths and huts on the farm (outside the study area), as well as structures, cultivated lands, orchards & plantations as well as natural bush sections. The 1920 topographical map (Degree Sheet 21) of *Machadodorp* revealed no historical black settlements in the immediate area (see Map 2).<sup>15</sup> Granite rocky outcrops to the east, west and north-east slope towards the Sand- & Krokodilspruit streams, which cuts through the property.

The author was also involved in desktop studies and surveys in the area, such as:

- *Study for the Proposed Eskom Powerlines, Hazyview – Dwarsloop* (2008);
- *Inspection of Umbhaba Stone-walled settlement, Hazyview*, (2001);
- *a Phase 1 Archaeological and Heritage Impact Assessment for 132Kv Powerlines from*

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<sup>12</sup> Bornman, H., *The Pioneers of the Lowveld*, p. 9.

<sup>13</sup> PRMA: Information file 9/2.

<sup>14</sup> D. Ziervogel, *The Eastern Sotho, A Tribal, Historical and Linguistic Survey*, p. 3.

<sup>15</sup> Map: 1920 Topographical Map: Machadodorp Degree Sheet no. 21.

- Kiepersol substation (Hazyview), to the Nwarele substation Dwarsloop (2002);*
- a *Phase 1 Archaeological and Heritage Impact Assessment for a proposed traffic training academy, Calcutta, Mkhuhlu, Bushbuckridge (2013);*
  - *Phase 1 Archaeological and Heritage Impact Assessment for the proposed Nkambeni cemetery in Numbi, Hazyview (2013);*
  - *Phase 1 Archaeological and Heritage Impact Assessment for a Development on the farm Agricultural Holding no 56 JU, White River (2013) was done in the wider area;*
  - *Phase 1 Archaeological and Heritage Impact Assessment for proposed agricultural development on the farm SIERAAD, Komatipoort area, (2013) revealed one possible Late Stone Age borer which was identified in a soil sample, one meter below the surface;*
  - *Phase 1 AIA / HIA for proposed debushing of natural land for agricultural use: Portion 10 of the farm Thankerton 175JU, Hectorspruit, Mpumalanga Province (2013); revealed some Later Stone Age artifacts which were all out of context and a burial site;*
  - *Phase 1 AIA / HIA for the proposed residential township, Tekwane extension 2, portion 7 of the farm Tekwane 537 JU. No archaeological material of significance was identified.*
  - *Report on Grave site found at portion 7 of the farm Tekwane 537 JU, in way of amended Bulk Sewer Pipeline, Kanyamazane, Mpumalanga Province (2017) – Large graveyard identified.*
  - *Phase 1 AIA / HIA for the proposed construction of a 0.75ML/D water treatment plant and bulk line on government land at Makoko Village (near White River) Kabokweni, Mpumalanga Province (2017) residential township, Tekwane extension 2, portion 7 of the farm – no significant archaeological sites were observed;*
  - *Letter of recommendation for the exemption from a Phase 1 AIA / HIA for the proposed new position for the Gutshwa substation, Gutshwa (near White River) (2016);*
  - *Phase 1 AIA / HIA for the proposed 2ha development of the Msogwaba Youth Development Centre on a portion of the farm Nyamasaan 647JU, Msogwaba, Mpumalanga province - no significant archaeological sites were observed (2018).*
  - *Phase 1 AIA / HIA for the proposed agricultural development of the farm, Krokodilspruit 247JT, White River, Mpumalanga Province (2018). A few clay potsherds, lower grinders, iron slag, historical features and graves were observed.*

The SAHRA database for archaeological and historical impact assessments was consulted and revealed other recent Archaeological Impact assessment reports in the wider area:

- J. Van Schalkwyk: *Proposed new Lebombo Port of Entry and upgrade of Komatipoort railway station between Mpumalanga (SA) and Mozambique (2008)* – Some historic buildings were identified but no archaeological remains were identified;
- A. Van Vollenhoven: *Report on a cultural Heritage Impact Assessment for the proposed Kangwane Antracite Mine, Komatipoort (2012)* – An archaeological site with Middle and Late Stone Age tools were identified as well as some Iron Age artifacts and decorated pottery. Mitigation measures were recommended by exclusion from the development or a Phase 2 study;
- JP Celliers: *Report on Phase 1 Archaeological Impact assessment on erven at Komatipoort 182 JU Extension 4, Komatipoort (2012)* – Revealed two pieces of undecorated sherds of pottery which was of low significance. It was recommended that any earthmoving activities be monitored by a qualified archaeologist.
- A. Van Vollenhoven: *Archaeological Impact Assessment for Border site at Komatipoort (2012)* – Revealed historic remains linked to the Steinaeker's Horse regiment during the South African War.
- A. Van Vollenhoven: *A Report on a basic assessment relating to cultural heritage resources for the proposed ESKOM Tekwane North line and substations, Mupumalanga Province (2013)* – revealed historic remains of low significance and a cemetery.

Very little contemporary research has been done on prehistoric African settlements in the study area. Later Stone Age sites in the Kruger National Park date to the last 2500 years and are associated with pottery and microlith stone tools.<sup>16</sup> The only professionally excavated Early Iron Age site near the area, besides those in the Kruger National Park, was the Plaston site near White River, dating ca 900 AD.<sup>17</sup> No other archaeological excavations have been conducted to date within the study area, which have been confirmed by academic institutions and specialists in the field.<sup>18 19</sup> A stone walled settlement with terracing was recorded by C. Van Wyk (Rowe) close to Hazyview,<sup>20</sup> as well as several which were documented in the southern parts of the Kruger National Park.<sup>21</sup>

<sup>16</sup> J.S. Bergh (red.), *Geskiedenis Atlas van Suid Afrika: Die vier Noordelike Provinsies*, p. 95.

<sup>17</sup> M.M. Van der Ryst., *Die Ystertydperk*, in J.S. Bergh (red.), *Geskiedenis Atlas van Suid Afrika: Die vier Noordelike Provinsies*. p. 97.

<sup>18</sup> Personal information: Dr. J. Pistorius, Pretoria, 2008-04-17.

<sup>19</sup> Personal information: Dr. MS. Schoeman, University of Pretoria, 2008-03-27.

<sup>20</sup> C. Van Wyk, *Inspection of Umbhaha Stone-walled settlement, Hazyview*, pp. 1-2.

<sup>21</sup> Eloff J.F., *Verslag oor Argeologiese Navorsing in die Krugerwildtuin*, June / July, 1982.

The southern Kruger Park and Nelspruit / Bongani Nature Reserve areas have an abundance of San rock art sites,<sup>22</sup> as mentioned above, but none were identified on the farm *Krokodilspruit 248JT*.

Several early ethnographical and linguistic studies by early researchers such as D. Ziervogel and N.J. Van Warmelo, revealed that the study area was mainly inhabited by the Sotho groups (Pulana & Pai), Swazi from before the 18<sup>th</sup> century, as well as small groups of Tsonga (Nhlanganu and Tšhangana).<sup>23 24</sup> (See Map 1: 1935: Map of Van Warmelo). When concentrating on ethnographical history, it is important to include a slightly wider geographical area for it to make sense. Van Warmelo based his 1935 survey of *Bantu Tribes of South Africa* on the number of taxpayers in an area. The survey does not include the extended households of each taxpayer, so it was impossible to reliably indicate how many people were living in one area.<sup>25</sup>

The whole district is divided in two, with the Drakensberg Escarpment in the west, and the Low Veld (in which the study area is situated) towards the east. Today, we found that the boundaries of groups are intersected and overlapping.<sup>26</sup> Languages such as Zulu, Xhosa, Swazi, Nhlanganu, Nkuna, sePedi, hiPau and seRôka, are commonly spoken throughout this area.<sup>27</sup>

During the middle of the 18<sup>th</sup> century some Sotho and Swazi groups combined under a fighting chief Simkulu. The tribe so formed became known as the BakaNgomane. The principal settlement of Simkulu was in the vicinity of the confluence of the Crocodile and Komati Rivers. It is believed that the BakaNgomane chiefs were buried there.<sup>28</sup>

The Swazi under Mswati II (1845), commenced on a career of largescale raids, on the prosperous tribal lands to the north of Swaziland. His regiments such as the *Nyatsi* and the

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<sup>22</sup> Hampson, J., et al., The rock art of Bongani Mountain Lodge and its environs, *South African Archaeological Bulletin* 57: pp. 17-28.

<sup>23</sup> N.J. Van Warmelo, *A Preliminary Survey of the Bantu Tribes of South Africa*. pp. 90-92 & 111.

<sup>24</sup> H. S. Webb, The Native Inhabitants of the Southern Lowveld, in *Lowveld Regional Development Association, The South-Eastern Transvaal Lowveld*. p.16.

<sup>25</sup> N.J. van Warmelo, *A Preliminary Survey of the Bantu Tribes of South Africa*, p.9.

<sup>26</sup> N.J. van Warmelo, *A Preliminary Survey of the Bantu Tribes of South Africa*, p. 51.

<sup>27</sup> M. De Jongh (ed)., *Swatini*, p. 21.

<sup>28</sup> Bornman H., *The Pioneers of the Lowveld* pp. 10-11.

*Malelane* brought terror to African homes as far afield as Mozambique.<sup>29</sup> During their northern expansion they forced the local inhabitants out of Swaziland, or absorbed them.<sup>30</sup> There is evidence of resistance, but the Eastern Sotho groups who lived in the northern parts of Swaziland, moved mainly northwards.<sup>31</sup> This appears to have taken place towards the end of the 18<sup>th</sup> century,<sup>32</sup> when these groups fled from Swaziland to areas such as Nelspruit, White River, Bushbuckridge, Klaserie, Blyde River and Komatipoort.<sup>33</sup>

Mswati II built a line of military outposts from west to east of the upper Komati River and the Mlambongwane (Kaap River). At each outpost, he stationed regiments to watch and stop the BaPedi returning to their old haunts.<sup>34</sup> Shaka in the course of his military actions, came into conflict with Zwide Mkhathshwa (1819). Notwithstanding Zwide's numerical superiority, Shaka defeated him. The remnants of Zwide's tribe fled into the Eastern Transvaal where they settled. They ultimately found a new kingdom in Gaza land, which extended from just north of the current Maputo, up the east coast as far as the Zambezi River.<sup>35</sup>

Soshangane was a very powerful chief of the Gaza people, even though he was under the rule of Zwide. Soshangane decided to leave and was given full passage through Swaziland. He passed on his way through the Komati gorge, today known as Komatipoort, taking with him a great booty of cattle and women. Meanwhile more Shangane arrived and by 1896 some 2000 refugees settled between Bushbuckridge and Acornhoek where they are still living today. With the establishment of the Sabie Game Reserve (later known as the Kruger National Park), the BakaNgomane, their Shangaan protégés and Swazis who lived within its borders, were evicted in 1902, and went westward into Klaserie and Bushbuckridge areas, or south of the Crocodile River and established themselves in the Tenbosch and Coal Mine (Strijdom Block) areas, west and south of Komatipoort. The Swazi of Khandzalive moved to Mjejane or Emjejane, the current name for Hectorspruit,<sup>36</sup> east of the study area (see also: Map 1: 1935 Van Warmelo).

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<sup>29</sup> Bornman H., *The Pioneers of the Lowveld* p 11.

<sup>30</sup> A.C. Myburgh, *The Tribes of Barberton District*, p. 10.

<sup>31</sup> N.J. Van Warmelo, *A Preliminary Survey of the Bantu Tribes of South Africa*. p. 111.

<sup>32</sup> H. S. Webb, *The Native Inhabitants of the Southern Lowveld, in Lowveld Regional Development Association, The South-Eastern Transvaal Lowveld*. p. 14

<sup>33</sup> *Ibid.*, p. 16.

<sup>34</sup> Bornman, H., *The Pioneers of the Lowveld* p. 12.

<sup>35</sup> Bornman, H., *The Pioneers of the Lowveld*, p.17.

<sup>36</sup> Bornman, H., *The Pioneers of the Lowveld*, p.19.

## Swazi

The Swazi people descend from the southern Bantu (Nguni) who migrated from central Africa in the 15<sup>th</sup> and 16<sup>th</sup> centuries.<sup>37</sup> The differences between the Swazi and the Natal Nguni were probably never great, their culture as far as is known from the comparatively little research being carried out, does not show striking differences. Their language is a 'Tekeza' variation of Zulu, but through having escaped being drawn into the mainstream of the Zulus of the *Shaka* period, they became independent and their claim to be grouped apart as a culture is now well founded.<sup>38</sup>

## Eastern Sotho group: The Pai

Van Warmelo identified the groups in northern Swaziland and the Pilgrim's Rest district before 1886 (including Sabie, Hazyview and White River), as Eastern Sotho (Pulana, Pai and Kutswe). According to Von Wielligh, the **Pai** occupied the area as far south as the Komati River (umLumati). Most of the younger generation has adopted the Swazi language.<sup>39</sup>

The Swazi constantly attacked the Eastern Sotho groups during the nineteenth century. The Pai fled to the caves in the mountains near MacMac (between Sabie and Pilgrim's Rest), while some of them (which were subjugated by a Swazi leader) fled from *Mswazi* in about 1853 to Sekukuniland (Steelpoort area), but decided to turn back towards their country along the Sabie River (1882). By this time, Europeans had already settled in this area when gold was discovered in 1873.<sup>40</sup>

## Eastern Sotho group: The Pulana

The history of the **Pulana** goes back to the Barberton area from where they trekked via Krokodilpoort (Nelspruit district) to settle north-east of Pretoriuskop (near Hazyview). When the Swazi invaded them, they moved on and split up under several chieftainships,<sup>41</sup> of who chief Kobêng (after which Kowyns' Pass was named), is well-known in the area's history.

The Pulana roughly lived in the following areas: north of the Crocodile River, west of the western boundary of the Kruger National Park as far north as its crossing the Sabie River, south

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<sup>37</sup> Swaziland: <http://en.wikipedia.org/wiki/Swaziland> p.1.

<sup>38</sup> N.J. Van Warmelo, *A Preliminary Survey of the Bantu Tribes of South Africa*, p. 83.

<sup>39</sup> D. Ziervogel, *The Eastern Sotho, A Tribal, Historical and Linguistic Survey*, pp. 3-5.

<sup>40</sup> D. Ziervogel, *The Eastern Sotho, A Tribal, Historical and Linguistic Survey*, p. 11.

<sup>41</sup> *Ibid.*, p. 108.

of the Sabie river until its cutting through the main road from Pretoriuskop (including Hazyview and close to White River), to Bushbuckridge, west of this road as far as Klaserie, south of a line drawn from Klaserie to the confluence of the Blyde and Orighstad rivers, and east of the Blyde River. This large area is divided in two by the main road from Pilgrim's Rest to Bushbuckridge. This road was since ancient times the only connection between the Low Veld and Escarpment, and became known as "Kowyns' Pass".<sup>42</sup> The majority of Pulana lived to the north of this line, while south of this line the Pulana are scattered in groups into which are wedged Pai groups on both sides of the Sabie River, and Swazi peoples in the south, and south-eastern portions.<sup>43 44</sup>

### **Eastern Sotho group: The Kutswe**

The **Kutswe** trekked from the northern parts of Swaziland northwards as a result of pressure from the Swazi in the south.<sup>45</sup> The Kutswe settled north-east of the present Nelspruit at a river called Kutswe (Gutshwa)<sup>46</sup> from where they got their present name. From here they moved on and settled at various places, and ruins of their kraals are scattered from Pretoriuskop, Hazyview (Phabeni) as well as on the farms Welgevonden 364, Lothian 258, Boschhoek 47, Sandford 46, Culcutta 51 and Oakley 262.<sup>47</sup> They occupied additional areas between **White River and Sabie**, and had sufficient influence amongst the Pai during the early 20<sup>th</sup> century, to establish authority over more than 2000 individuals living on farms on both sides of the Sabie River from the town of Sabie as far as the main road from **White River / Hazyview to Bushbuckridge**.<sup>48</sup>

### **Tsonga groups: The Nhlanganu and Tšhangana**

The Nhlanganu and Tšhangana (also generally known as the Shangaan-Tsonga)<sup>49</sup> form part of the larger Tsonga group, who occupied the whole of Mozambique (Portuguese East Africa), and it has been recorded that by 1554, they were already living around the Delagoa Bay area (Maputo).<sup>50</sup> They fled from the onslaughts of the Zulu (Nguni) nation from the Natal area, and great numbers of emigrants sought safety in the "Transvaal" as recently as the 19<sup>th</sup> century,

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<sup>42</sup> M. De Jongh, (ed)., *Swatini*, p. 21.

<sup>43</sup> D. Ziervogel, *The Eastern Sotho, A Tribal, Historical and Linguistic Survey*, p. 107.

<sup>44</sup> N.J. Van Warmelo, *A Preliminary Survey of the Bantu Tribes of South Africa*. p. 111.

<sup>45</sup> *Ibid.*, p. 110.

<sup>46</sup> T. Makhura, Early Inhabitants, in *Delius, P. (ed)., Mpumalanga: History and heritage*. p.105.

<sup>47</sup> D. Ziervogel, *The Eastern Sotho, A Tribal, Historical and Linguistic Survey*, p. 110.

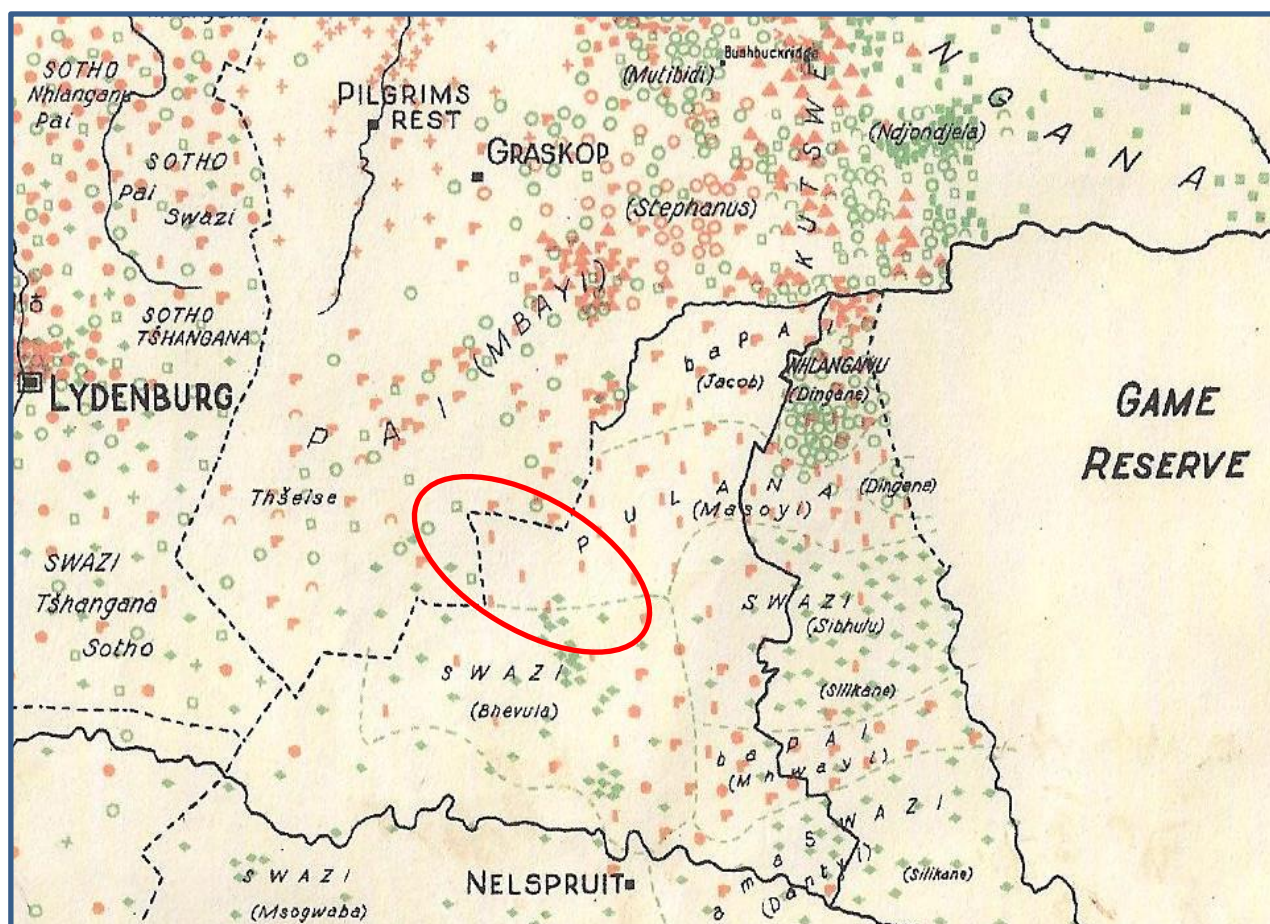
<sup>48</sup> *Ibid.*, pp. 4-10.

<sup>49</sup> M. De Jongh (ed)., *Swatini*, p. 24.

<sup>50</sup> N.J. Van Warmelo, Grouping and Ethnic History, in *Schapera I., The Bantu-Speaking Tribes of South Africa. An Ethnographical survey*, p. 55.



especially in the greater Pilgrim's Rest district (including the study area that we are concerned with). The Tsonga also moved west from Mozambique into the "Transvaal". They have never formed large powerful tribes but were mostly always subdivided into loosely-knit units, and absorbed under the protection of whichever chief would give them land.<sup>51</sup> They were originally of Nguni origin.<sup>52</sup> The term "Shangaan" is commonly employed to refer to all members of the Tsonga division.<sup>53</sup>



**MAP 1:** Van Warmelo: 1935:

Krokodilspruit, the study area, is indicated by the red oval.



<sup>51</sup> N.J. Van Warmelo, *A Preliminary Survey of the Bantu Tribes of South Africa*, pp. 90-91.

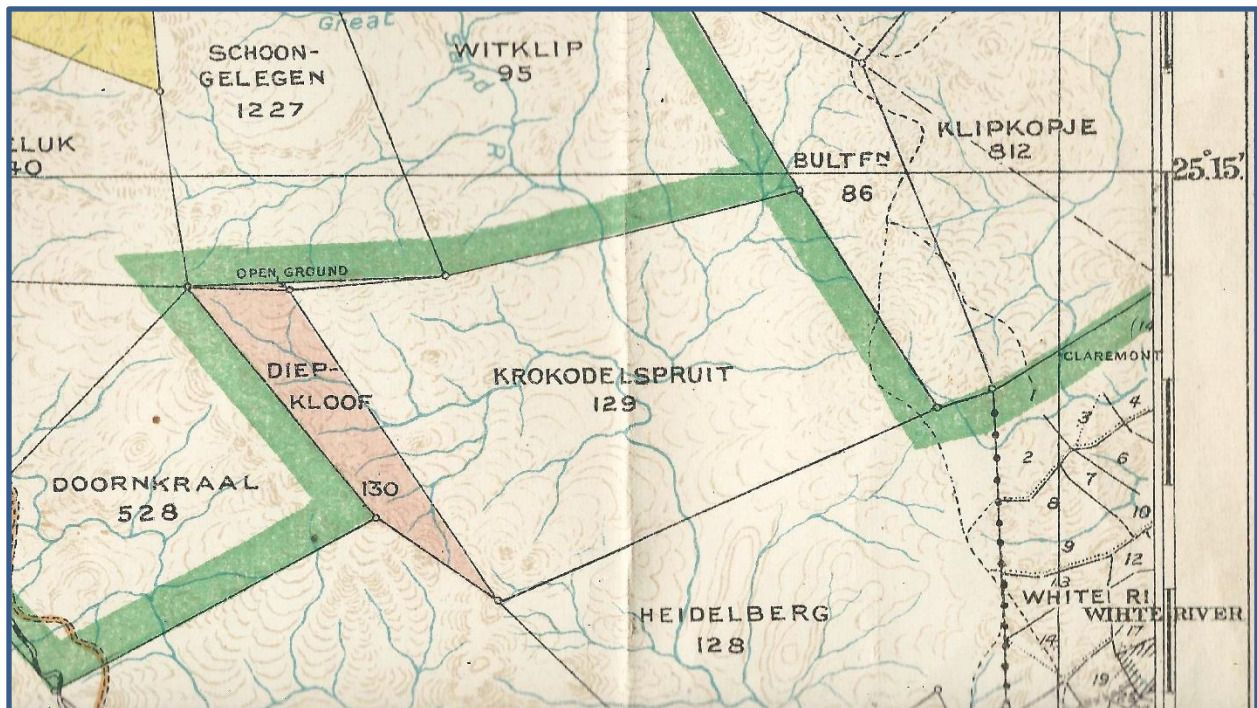
<sup>52</sup> N.J. Van Warmelo, Grouping and Ethnic History, in Schapera I., *The Bantu-Speaking Tribes of South Africa. An Ethnographical survey*, p. 55.

<sup>53</sup> N.J. Van Warmelo, *A Preliminary Survey of the Bantu Tribes of South Africa*, p. 92

The **Nhlanganu** occupied the Low Veld area in their efforts to escape the Zulu raids during 1835-1840. They lived side by side with the Tšhangana, and the differences between the two are inconsiderable. They have mixed extensively with other tribes.<sup>54</sup>

The **Tšhangana** are also of Nguni origin who fled in the same way as the Nhlanganu, and settled in the “Transvaal” a little later than the former. Most of the Tsonga were subjects to *Soshangane*, who came from Zululand.<sup>55</sup> The downfall of *Ngungunyana* (son of *Soshangane*) saw his son seeking sanctuary in the “Transvaal”, and the latter became known as *Thulamahashi*,<sup>56</sup> the name that is still used for the area east of Bushbuckridge.

The historical background of the study area confirmed that it was occupied since the 17<sup>th</sup> century by the Tsonga groups (Nhlanganu and Tšhangana). These groups have intermarried extensively or were absorbed by other groups in time.<sup>57</sup>



**MAP 2:** 1920 Topographical map (Degree Sheet: Machadodorp No 21). No historical or cultural features of interest were indicated on this map.

<sup>54</sup> N.J. Van Warmelo, *A Preliminary Survey of the Bantu Tribes of South Africa*, pp. 91-92.

<sup>55</sup> N.J. Van Warmelo, *Grouping and Ethnic History*, in *Schapera I., The Bantu-Speaking Tribes of South Africa. An Ethnographical survey*, p. 57.

<sup>56</sup> N.J. Van Warmelo, *A Preliminary Survey of the Bantu Tribes of South Africa*, p. 92.

<sup>57</sup> M. De Jongh (ed.), *Swatini*, p. 40.

- **History of White River**

Early white settlers reported that there were relatively few black people in the district at the turn of the century, due to a combination of malaria, tsetse fly and the marauding Swazi impi's. There were however isolated kraals from the present Drum Rock Hotel in White River to Bushbuckridge (south-east of the study area).<sup>58</sup>

Just after the Anglo-Boer War, the High Commissioner of South Africa, Lord Alfred Milner, was investigating areas with favorable and healthy climates, fertile soil and lots of water, for farming. The ideal area that was identified was White River (or the White River Valley as it was then known).<sup>59</sup> Many ex-servicemen settled in the area but conditions were harsh and by 1911 only a Scot named Macdonald successfully farmed with citrus.<sup>60</sup>

Today, citrus from this area is one of the main forms of agriculture in the Province.<sup>61</sup> Massive timber plantations were planted around White River and one of the biggest timber mills with the latest technology was built in 1982 in the town.<sup>62</sup>

### **C. DESCRIPTION OF THE AREA TO BE AFFECTED BY THE PROPOSED DEVELOPMENT**

The applicant, DANROC (Pty) Ltd., in co-operation with RHENGU Environmental Services, is requesting the alteration of natural as well as transformed land for agricultural use, to establish macadamia orchards (see maps 3- 6). The project will involve three areas which were identified for the proposed expansion of the orchards.<sup>63</sup> The sections are named Section 1, 2 & 3, for the purposes of this report, and to correspond with the Krokodilspruit Screening report.<sup>64</sup>

Aerial maps from 1936 were studied and revealed that large sections on the farm were historically used for agricultural purposes (see map 7 & Appendix 2).<sup>65</sup>

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<sup>58</sup> Nevill C., *White River Remembered*, p. 68.

<sup>59</sup> Borman, H., *Baanbrekers van die Laeveld*, p. 39.

<sup>60</sup> Nevill, C., *White River Remembered*, p. 3.

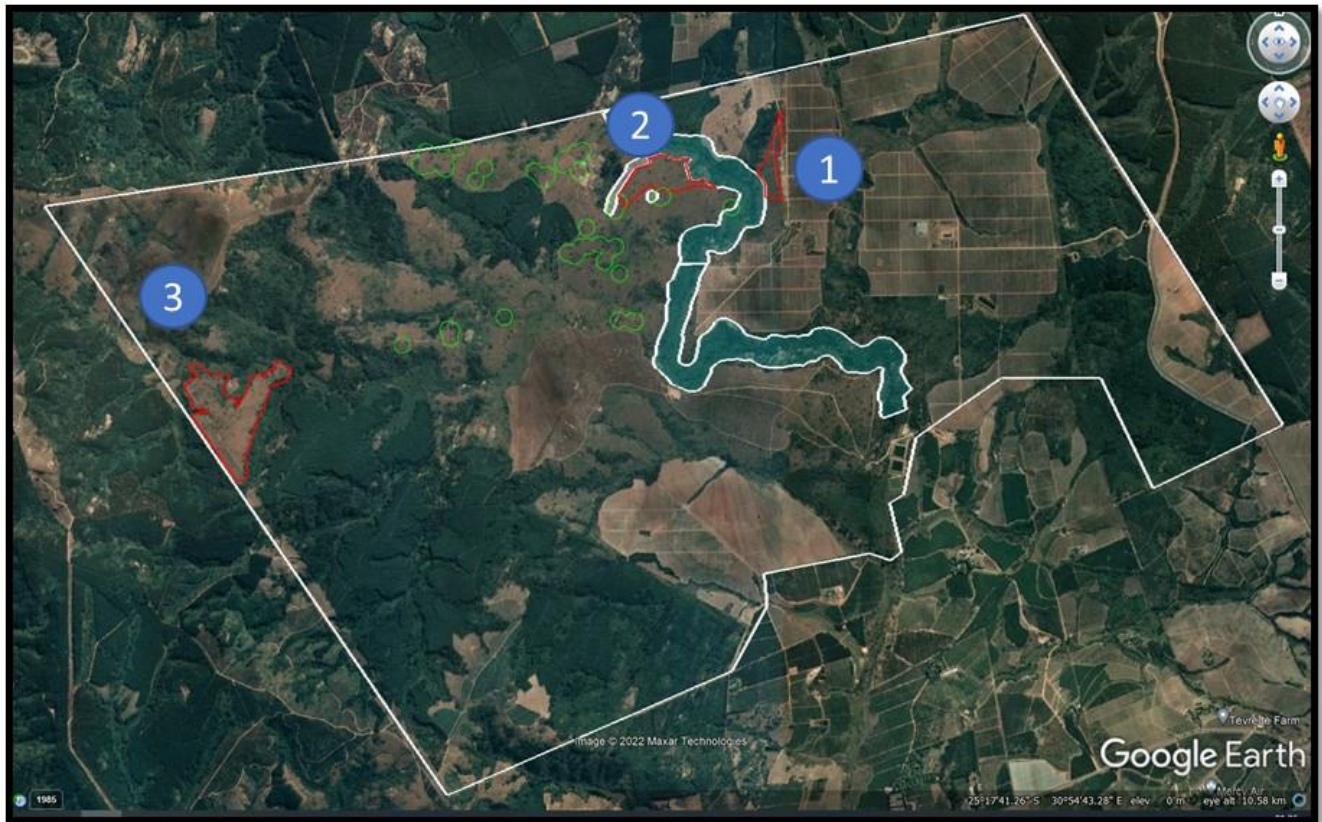
<sup>61</sup> Delius, P. & Hay, M., *Mpumalanga, an illustrated history*, p. 156.

<sup>62</sup> *Ibid.* p. 162.

<sup>63</sup> Deacon, AR., Krokodilspruit Screening Report, 2022-03-28.

<sup>64</sup> Deacon, AR., Krokodilspruit Screening Report, 2022-03-28.

<sup>65</sup> Personal communication: Mr. P. Beckenstrater, 2018-10-08.



**MAP 3:** The three proposed sections for development are indicated in red on this map. (Map provided by AR Deacon, Krokodilspruit Screening report).<sup>66</sup> Sections 1 & 2 are situated on the north-eastern side, and Section 3 along the western boundary, of the farm.

### **SECTION 1:**

Section 1 is situated to the east of the Sandspruit (see maps 3 & 4). The area for the proposed development is 8.42ha and consists of previously disturbed (since 1936), agricultural land (see aerial map 7), with sections of untransformed grassland (see figs. 1 - 10).<sup>67</sup> The area in the south consists of grassland with a section in the south which has been invaded with pioneer vegetation such as Sickie bush – *Dichrostachys cinerea*. Sickie bush occurs in the bushveld and is often invasive and thicket forming particularly in disturbed or overgrazed areas (figs. 7 & 8).<sup>68</sup> Some open sections occur in the study area, and have been studied for any possible archaeological or historical remains (figs. 4, 5 & 9), but none were observed.

<sup>66</sup> Deacon, AR., Krokodilspruit Screening Report, E-mail access: 2022-03-28.

<sup>67</sup> Deacon, AR., Krokodilspruit Screening Report, p. 3.

<sup>68</sup> Van Wyk, B., & Van Wyk P., Field Guide to Trees of Southern Africa, 1997, p. 500.



**MAP 4:** Section 1, to the east of the Sandspruit.



**MAP 5:** Section 2, to the west of the Sandspruit.

**SECTION 2:**

Section 2 is situated to the west and east of the Sandspruit (see map 5). The area for the proposed development is 17ha (figs. 11 – 26). A part of this section was assessed in 2018 for the previous development application (fig. 21), and visibility during this survey was excellent.

During the 2022 survey, the grass was dense and visibility was restricted. The area consisted of untransformed grassland,<sup>69</sup> of which some sections have been historically disturbed as is indicated by the 1936 Aerial Photographs (see map 7). The 2018 survey revealed some clay potsherds and Lower Grinding stones (figs. 22 – 26). None of these features are within an archaeological context and they have already been impacted upon by previous agricultural developments.<sup>70</sup> The possibility exists that the cultural material, potsherds and Lower Grinders, are of a more recent nature, as the 1980 topographical map (map 9), also indicate footpaths and huts on the farm. Clay potsherds and grinding stones are still widely used in rural areas, today. There is no cultural value to these objects which could link them as of outstanding importance to a certain community. No mitigation is recommended.

Some rocky outcrops occur to the west and the north of the site. Rocky sections on the property are natural and undisturbed with indigenous vegetation cover, and consist of granite outcrops. Many drainage lines from these sections (east and west on the farm), feed into the Sandspruit and Krokodilspruit rivers.

### SECTION 3:

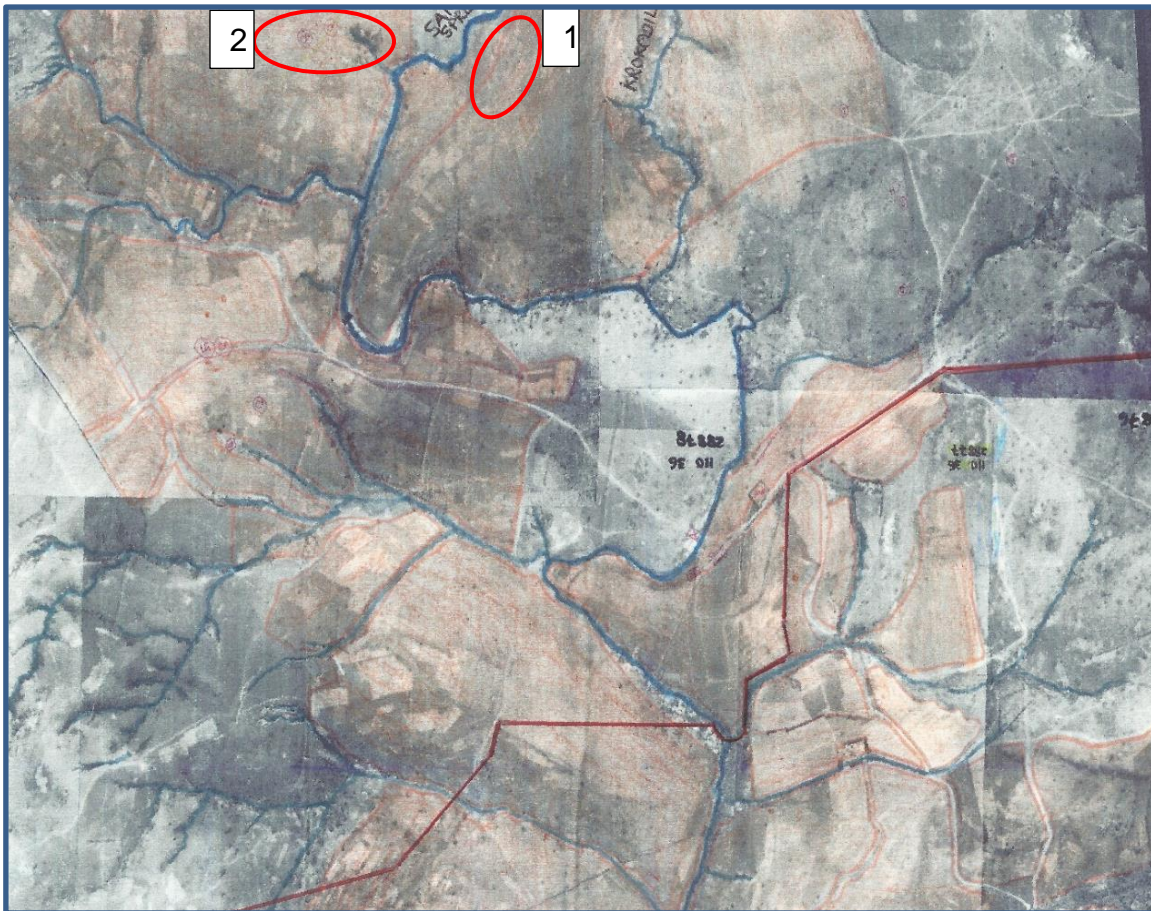


**MAP 6:** Section 3, which is situated on the western boundary of Krokodilspruit.

<sup>69</sup> Deacon, AR., Krokodilspruit Screening Report, p. 4.

<sup>70</sup> Rowe, C., Phase 1 AIA/HIA for the proposed agricultural development of the farm, Krokodilspruit 247JT, White River, Mpumalanga Province, 2018.

Section 3 is situated next to the western boundary of Krokodilspruit farm (see map 6). The area for the proposed Section 3 development is 46ha (figs. 27 - 38). This section consists mostly of reasonably untransformed grassland. A deep gully forms the southern boundary of the site, and a large wooded drainage line forms the south-eastern boundary.<sup>71</sup> The survey was conducted in April 2022 and the vegetation (grassland) was dense. Visibility was restricted, although all open areas were inspected for any signs of an archaeological or historical nature (figs. 31, 33 & 38). Rocky sections occur towards the north of this section. No archaeological or historical remains were identified in Section 3.



**MAP 7:** A combination of aerial maps from 1936, show the extent of the cultivated lands (orange), on the farm.

#### **RIVER CROSSING:**

A River crossing is planned to the east of Section 2 (figs. 39 -41). The crossing will be over a solid rock bank and there are no archaeological or historical remains within this section.

<sup>71</sup> Deacon, AR., Krokodilspruit Screening Report, p. 5.

Technically the ecozone representing this area is referred to *Lowveld Sour Bushveld* (Acocks, 1952 and Low & Rebelo 1996). The distribution is from the lower eastern slopes and hills of the north-eastern escarpment from Mariepskop in the north through White River and Nelspruit, terminating in the south (Barberton area).<sup>72</sup>

Vegetation includes dense woodland, including many medium to large shrubs often dominated by *Parinari curatellifolia* and *Bauhinia galpinii* with *Hyperthelia dissoluta* and *Panicum maximum* in the undergrowth. Short thicket dominated by *Acacia ataxacantha* occurs on less rocky sites. Exposed granite outcrops have low vegetation cover. Dominant trees include *Acacia sieberiana*, *A. clavyi*, *Dicfirosfacfiys cinerea* and *Rhus pyroides* with grasses *Hyperthelia dissoluta*, *Hyparrhenia* species, and shorter grass species such as *Themeda triandra* and *Loudetia simplex*.<sup>73 74</sup>

The typical granite and dolerite plains have sandy soils and clayey soils in the lower areas. Most of the area is underlain by gneiss and migmatite of the Nelspruit Suite. Soils are of Mispah, Glenrosa and Hutton forms, shallow to deep, sandy or gravelly and well drained.<sup>75 76 77</sup>

#### **D. LOCALITY**

The proposed site for the development on the *farm KROKODILSPRUIT 248JT* is situated between Sabie and White River, with access from the R537 road. The study area is approximately 8 km north-west of White River. A section of the R537 road cuts through the eastern border of the farm.

The study area is indicated on the 1980 topographical map (2530BD NELSPRUIT), as well as a 1920 topographical map (Machadodorp, Degree Sheet 21), which were studied for any possible historical features (see maps 2 & 9).

The site falls within the Ehlanzeni District Municipality, and the Mbombela Local Municipal in the Mpumalanga Province (maps 1 - 11 & Appendix 2, figs. 1 – 41 for the study area).

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<sup>72</sup> Personal Communication: Dr. Andrew Deacon, 2018-11-22 / 2022-03-28.

<sup>73</sup> Personal Communication: Dr. Andrew Deacon, 2018-11-22 / 2022-03-28.

<sup>74</sup> Van Wyk, B., & Van Wyk P., Field Guide to Trees of Southern Africa, 1997

<sup>75</sup> SANPARKS, Visitors Guide to the Kruger National Park, p. 2.

<sup>76</sup> Van Wyk, B., & Van Wyk P., Field Guide to Trees of Southern Africa, 1997, p. 500.

<sup>77</sup> Personal Communication: Dr. Andrew Deacon, 2018-11-22 / 2022-03-28.





### **Description of methodology:**

The 1980 topographical map, (2530BD NELSPRUIT, map 9), a 1920 map (Degree Sheet 21, MACHADODORP), Google images as well as aerial images dating from 1936, were intensively studied to assess the current and historically disturbed areas and infrastructure on the farm Krokodilspruit (maps 2 - 11).

In order to reach a comprehensive conclusion regarding the cultural heritage resources in the study area, the following methods were used:

- The desktop study consisted mainly of archival sources studied on distribution patterns of early African groups who settled in the area since the 17<sup>th</sup> century, and which have been observed in past and present ethnographical research and studies.
- Literary sources, books and government publications, which were available on the subject, have been consulted, in order to establish relevant information. The previous study which was done in 2018 on Krokodilspruit, was also used.
- Specialists currently working in the field of anthropology and archaeology have also been consulted on the subject.

-Literary sources: A list of books and government publications about prehistory and history of the area were cited, and revealed some information;

-The archaeological database of SAHRA as well as the National Cultural History Museum were consulted. Heritage Impact Assessment reports of specialists who worked in the area were studied and are quoted in section B.

- The fieldwork and survey were conducted extensively by four people on foot and per vehicle. Existing tracks and paths were also used to access sections (see Appendix 1).
- The survey was conducted during late summer when the grassland vegetation was dense. Visibility was restricted. A comprehensive survey was done in 2018 when visibility was excellent, and information from the 2018 report was used, where relevant. (Appendix 1 & 2).
- The relevant data was located with a GPS instrument (Garmin Oregon 750) datum WGS 84, and plotted. Co-ordinates were within 3 meters of identified sites.
- Evaluation of the resources which might be impacted upon by the footprint, was done within the framework provided by the National Heritage Resources Act, no. 25 (1999);
- Personal communication with environmental practitioner Ralf Kalwa,<sup>78</sup> as well as the Mr.

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<sup>78</sup> Personal communication: Environmental Practitioner, Mr. Ralf Kalwa, 2022-03-25.

J. Manhique (who accompanied us during the survey), <sup>79</sup> and the previous owner Mr. Peter Beckenstrater, <sup>80</sup> (for the previous survey), were held.

GPS co-ordinates were used to locate the perimeters and any heritage features within the study areas:

<b>GPS CO-ORDINATES</b>			
<b>Location</b>	<b>South</b>	<b>East</b>	<b>Elevation</b>
Section 1	S 25° 16' 11.75"	E 30° 55' 50.52"	924m
Section 2	S 25° 16' 08.30"	E 30° 55' 13.75"	933m
Section 3	S 25° 17' 23.99"	E 30° 52' 49.02"	1099m
River Crossing	S 25° 16' 02.52"	E 30° 55' 28.04"	898m

## **E. DESCRIPTION OF IDENTIFIED SITES**

DANROC (Pty) Ltd., (the applicant), in co-operation with Rhengu Environmental Services, is requesting the development of agricultural land on three sections to a total of 76ha (Section 1 is 8.42ha, Section 2 is 17ha and Section 3 is 46ha). Sections 1 & 2 are mainly transformed land, while Section 3 is untransformed on the *farm Krokodilspruit 248JT* (maps 3 - 6). <sup>81</sup> The survey took place in late summer and the vegetation in the proposed areas was dense and lush. The general terrain varied from even and accessible (for Sections 1 & 2), to more difficult to access in Section 3. Visibility was restricted and information was used from the 2018 survey, which was done for the same property (see Appendix 2, figs. 1 – 41). The features which were identified during the 2018 investigation, are discussed below.

All comments should be studied in conjunction with the maps, figures and appendices, which indicate the study area, and which correspond with the summary below. Photographs in Appendix 2 show the general view of the study area, as well as the heritage features which were identified (figs. 22 - 26).

A 1920 topographical map (map 2) does not indicate any historic or pre-historic settlements directly in, or close to the study area. The 1980 topographical map (map 9), indicate a hut settlement with a distinct footpath in the south-western corner of the farm, as well as distinct

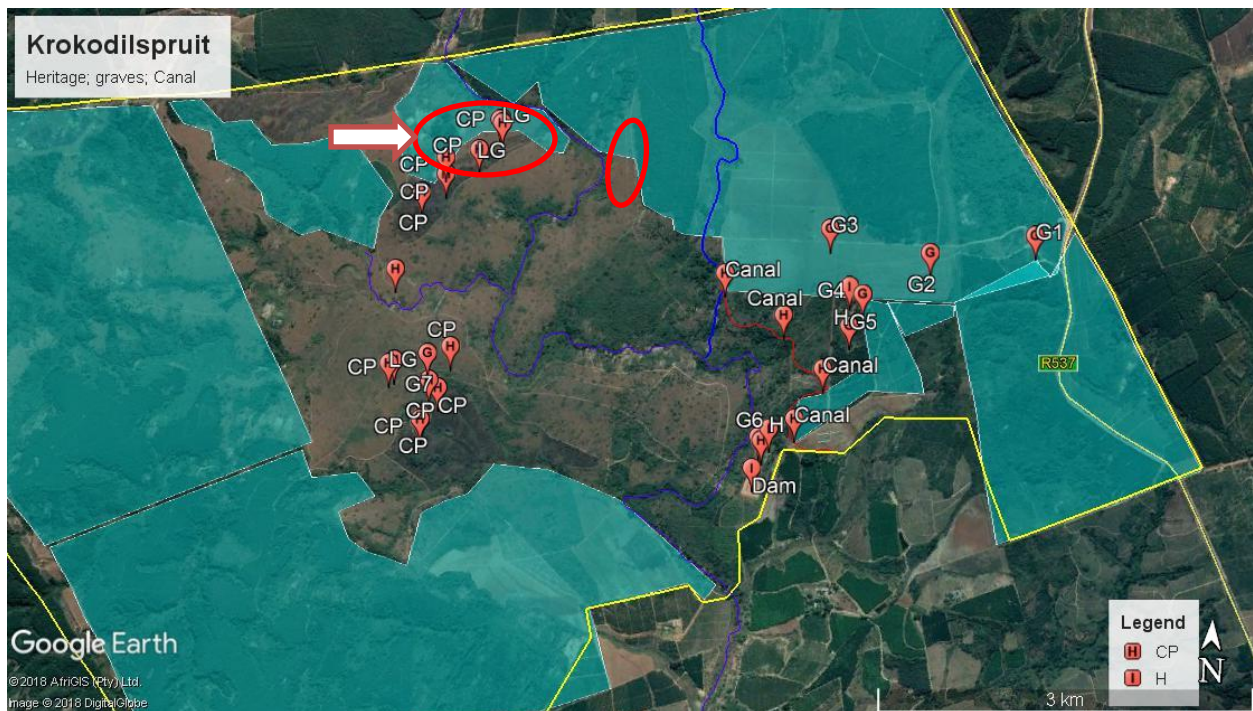
<sup>79</sup> Personal communication: Farm Supervisor: Mr. Josiah Manhique, 2022-04-13.

<sup>80</sup> Personal communication: Previous Owner, Mr. P. Beckenstrater, 2018-10-08.

<sup>81</sup> Deacon, AR., Krokodilspruit Screening Report, p. 5.

footpaths in the eastern section of the farm (south to north). A Late Iron Age (LIA) stone wall was observed in the eastern section, but falls outside of the study area. Hut settlements were also indicated in the south-eastern section.

Eight aerial photographs of the farm, dating from 1936, were studied to establish the extent of previously cultivated lands. Vegetables and fruit were in great demand in the White River district between the First- and Second World Wars (see section B). Large sections on the farm Krokodilspruit were under cultivation (see orange sections on map 7 & Appendix 2). Water furrows (earth canals), were established to supply water to cultivated lands during this time (early 20<sup>th</sup> century). These furrows were lined with concrete during 1960.<sup>82</sup> The water furrows are not within the current study area and will not be discussed in this report.



**MAP 10:** Google image of the position of all heritage features and graves which were identified during the 2018 survey. Only the clay potsherds (CP) and Lower grinders (LG), fall within the current study area (Section 2, which is indicated by the arrow).

<sup>82</sup> Personal communication: Previous Owner, Mr. P. Beckenstrater, 2018-10-08.



**MAP 11:** Section 2 where heritage features (clay potsherds = CP, and Lower Grinders = LG, were identified during the 2018 survey. The shaded area indicates the distribution within, as well as outside of the current study area.

**Features which were observed during the 2018 survey (see maps 10 & 11):**

Feature / Site	Description / Comments	Site Location
<b>LIA HERITAGE FEATURES</b>		
<b>Lower grinders</b> <b>Clay potsherds</b>	Fragments of clay potsherds scattered over a wide area, in various sizes. Some have a distinct rim and only one had an incised decoration. (Inside study area, Section 2). Figs. 22 - 26	25°16'29.34"S 30°54'52.66"E ( <b>outside study area</b> ) Between Elev. 957 & 937m 25°16'09.10"S 30°55'14.62"E

## F. DISCUSSION ON THE FOOTPRINT OF THE PROPOSED DEVELOPMENT

<i>ACT</i>	<i>COMPO- NENT</i>	<i>IMPLICATION</i>	<i>RELEVANCE</i>	<i>COMPLIANCE</i>
NHRA	S 34	Impact on buildings and structures older than 60 years	None	None
NHRA	S35	Impacts on archaeological heritage resources	Clay potsherds & Lower grinders out of archaeological context	None
NHRA	S36	Impact on graves	None	None
NHRA	S37	Impact on public monuments	None present	None
NHRA	S38	Developments requiring an HIA	Development is a listed activity	HIA done
NEMA	EIA regulation	Activities requiring an EIA	Development is subject to an EIA	HIA is part of EIA

- **Summarised identification and cultural significance assessment of affected heritage resources: General issues of site and context:**

<i>Context</i>		
Urban environmental context	No	NA
Rural environmental context	No	NA
Natural environmental context	No	NA
<i>Formal protection (NHRA)</i>		
(S. 28) Is the property part of a protected area?	No	NA
(S. 31) Is the property part of a heritage area?	No	NA
<i>Other</i>		
Is the property near to or visible from any protected heritage sites	No	NA

<b>Context</b>		
Is the property part of a conservation area of special areas in terms of the Zoning scheme?	No	NA
Does the site form part of a historical settlement or townscape?	No	NA
Does the site form part of a rural cultural landscape?	No	NA
Does the site form part of a natural landscape of cultural significance?	No	NA
Is the site adjacent to a scenic route?	No	NA
Is the property within or adjacent to any other area which has special environmental or heritage protection?	No	NA
Does the general context or any adjoining properties have cultural significance?	No	NA

<b>Property features and characteristics</b>		
Have there been any previous development impacts on the property?	Yes	Agriculture & Forestry
Are there any significant landscape features on the property?	No	NA
Are there any sites or features of geological significance on the property?	No	NA
Does the property have any rocky outcrops on it?	Yes	Rocky outcrops occur
Does the property have any fresh water sources (springs, streams, rivers) on or alongside it?	Yes	Drainage lines & Sandspruit & Krokodilspruit rivers

<b>Heritage resources on the property</b>		
<b>Formal protection (NHRA)</b>		
National heritage sites (S. 27)	No	NA
Provincial heritage sites (S. 27)	No	NA
Provincial protection (S. 29)	No	NA
Place listed in heritage register (S. 30)	No	NA
<b>General protection (NHRA)</b>		
Structures older than 60 years (S. 34)	No	NA
Archaeological site or material (S. 35)	Yes	See evaluation
Graves or burial grounds (S. 36)	No	NA
Public monuments or memorials (S. 37)	No	NA
<b>Other</b>		
Any heritage resource identified in a heritage survey (author / date / grading)	No	NA
Any other heritage resources (describe)	No	NA

<b>NHRA S (3)2 Heritage resource category</b>	<b>ELEMENTS</b>	<b>INDICATORS OF HERITAGE SIGNIFICANCE</b>										<b>RISK</b>	
		Hist orica l	Rar e	Sci ent ific	Typi cal	Tech nolo gical	Aes theti c	Pers on / com muni ty	Land mark	Mate rial con ditio n	Sust aina bility		
Buildings / structures of cultural significance	No	-	-	-	-	-	-	-	-	-	-	-	NA
Areas attached to oral traditions / intangible heritage	No	-	-	-	-	-	-	-	-	-	-	-	NA



<b>NHRA</b>	<b>ELE-</b>	<b>INDICATORS OF HERITAGE SIGNIFICANCE</b>										<b>RISK</b>	
Historical settlement / townscapes	No	-	-	-	-	-	-	-	-	-	-	-	NA
Landscape of cultural significance	No	-	-	-	-	-	-	-	-	-	-	-	NA
Geological site of scientific/cultural importance	No	-	-	-	-	-	-	-	-	-	-	-	NA
Archaeological sites	Yes	-	-	-	-	-	-	-	-	-	-	-	No risk as material is out of context – see evaluation
Grave / burial grounds	No	-	-	-	-	-	-	-	-	-	-	-	NA
Areas of significance related to labour history	No	-	-	-	-	-	-	-	-	-	-	-	NA
Movable objects	No	-	-	-	-	-	-	-	-	-	-	-	NA

- Summarised recommended impact management interventions

<b>NHRA S (3)2 Heritage resource category</b>	<b>SITE</b>	<b>IMPACT SIGNIFICANCE Cultural significance rating</b>		<b>Impact management</b>	<b>Motivation</b>
		<b>Cultural significance</b>	<b>Impact significance</b>		

<b>NHRA S (3)2 Heritage resource</b>	<b>SITE</b>	<b>IMPACT SIGNIFICANCE Cultural significance rating</b>		<b>Impact management</b>	<b>Motivation</b>
Buildings / structures of cultural significance	No	No	None	None	NA
Areas attached to oral traditions / intangible heritage	No	None	None	-	NA
Historical settlement/ townscape	No	None	None	-	NA
Landscape of cultural significance	No	None	None	-	NA
Geological site of scientific/ cultural importance	No	None	None	-	NA
Archaeological sites	Yes	None	None	No impact	No risk as the material is out of context and therefore of no significance
Grave / burial grounds	No	No	None	-	NA
Areas of significance related to labour history	No	None	None	-	NA
Movable objects	No	None	None	-	NA

<b>ACT</b>	<b>COMPONENT</b>	<b>IMPLICATION</b>	<b>RELEVANCE</b>	<b>COMPLIANCE</b>
NHRA	S 34	Impact on buildings and structures older than 60 years	None present	None

<b>ACT</b>	<b>COMPONENT</b>	<b>IMPLICATION</b>	<b>RELEVANCE</b>	<b>COMPLIANCE</b>
NHRA	S35	Impacts on archaeological heritage resources	Clay potsherds & lower grinders - out of historical / archaeological context	None needed
NHRA	S36	Impact on graves	None present	None
NHRA	S37	Impact on public monuments	None present	None
NHRA	S38	Developments requiring an HIA	Development is a listed activity	Full HIA
NEMA	EIA regulation	Activities requiring an EIA	Development is subject to an EIA	HIA is part of EIA

## **G. STATEMENT OF SIGNIFICANCE & EVALUATION OF HERITAGE RESOURCES**

Section 38 of the NHRA, rates all heritage resources into National, Provincial or Local significance, and proposals in terms of the above are made for all identified heritage features.

### **• Evaluation methods**

Site significance is important to establish the measure of mitigation and / or management of the resources. Sites are evaluated as *HIGH (National importance)*, *MEDIUM (Provincial importance)* or *LOW, (local importance)*, as specified in the NHRA. It is explained as follows:

### **• National Heritage Resources Act**

The National Heritage Resources Act no. 25, 1999 (NHRA) aims to promote good management of the national estate, and to enable and encourage communities to conserve their legacy so that it may be bequeathed to future generations. Heritage is unique and it cannot be renewed, and contributes to redressing past inequities.<sup>83</sup> It promotes previously neglected research areas.

All archaeological and other cultural heritage resources are evaluated according to the NHRA, section 3(3). A place or object is considered to be part of the national estate if it has cultural significance or other special value in terms of:

- (a) its importance in the community, or pattern of South Africa's history;
- (c) its potential to yield information that will contribute to an understanding of South Africa's

<sup>83</sup> National Heritage Resources Act, no. 25 of 1999. p. 2.

natural or cultural heritage;

(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.<sup>84</sup>

- **The significance and evaluation of the archaeological and cultural heritage features on the farm *Krokodilspruit 248JT*, during the 2022 investigation:**

SAHRA regards all graves and burial sites (inside or outside of the study areas), as of high significance, but none were identified during the survey of the proposed Sections 1, 2 & 3, and the River crossing, on the farm.

Please note that the evaluation and discussion below is only applicable to heritage resources which will be impacted upon by the proposed agricultural development (inside the study area), unless otherwise worthy of mentioning. The significance and evaluation of the archaeological and cultural heritage features can be summarized as follows:

**LIA / RECENT HERITAGE FEATURES:**

<b>Site</b>	<b>Cultural Heritage Features</b>	<b>Significance</b>	<b>Measures of Mitigation</b>
<b>Clay potsherds, Lower Grinders,</b>	<b>INSIDE STUDY AREA: SECTION 2</b> None of these features are within an archaeological context. They have already been impacted upon by previous agricultural development. It is also argued that they may have been used in recent times as these items are still widely used in rural areas today	<b>LOW</b>	No mitigation measures are recommended (as they are not in any clear archaeological context).

<sup>84</sup> National Heritage Resources Act, no. 25 of 1999. pp. 12-14

## **Recommendation & discussion:**

### **LIA / RECENT Heritage features:**

Many fragments of clay potsherds and lower grinding stones which may be associated with the Late Iron Age, were observed in and outside of the study area. The clay potsherds in particular were all small fragments as they were mainly found in historically disturbed agricultural lands (figs. 22 – 26). None of these features are within an archaeological context and they have already been impacted upon by previous agricultural developments. The possibility exists that the cultural material, potsherds and lower grinders, are of a more recent nature, as the 1980 topographical map (map 9), also indicate footpaths and huts, which suggest recent settlement on the farm. Clay pots and grinding stones (upper and lower), are still widely used in rural areas, today. There is no cultural value to these objects which could link them as of outstanding importance to a certain community (NHRA 3.3a); or its potential to yield social, cultural or spiritual information or to link it to a particular community which may contribute to an understanding of South Africa's cultural heritage (NHRA 3.3c & g).<sup>85</sup> No mitigation is recommended.

## **H. CONCLUSION**

It is not believed that the archaeological features which were identified during the 2018 survey in Section 2, have any significance in terms of historic or cultural value which might prevent the proposed development to continue. No other archaeological-, historical- or cultural material, or graves were identified in the sections for the proposed agricultural development.

Archaeological material or graves are not always visible during a field survey and therefore some significant material may only be revealed during the agricultural development. Based on the survey and the findings in this report, Adansonia Heritage Consultants state that there are no compelling reasons which may prevent the proposed development (in Sections 1, 2, & 3 and the River Crossing) to continue. It is recommended that an assessment and recommendation be done by a qualified archaeologist, should any other archaeological material be found during development activities.

**Adansonia Heritage Consultants cannot be held responsible for any archaeological material or graves which were not located during the survey.**

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<sup>85</sup> National Heritage Resources Act, no. 25 of 1999.

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## **PERSONAL INFORMATION**

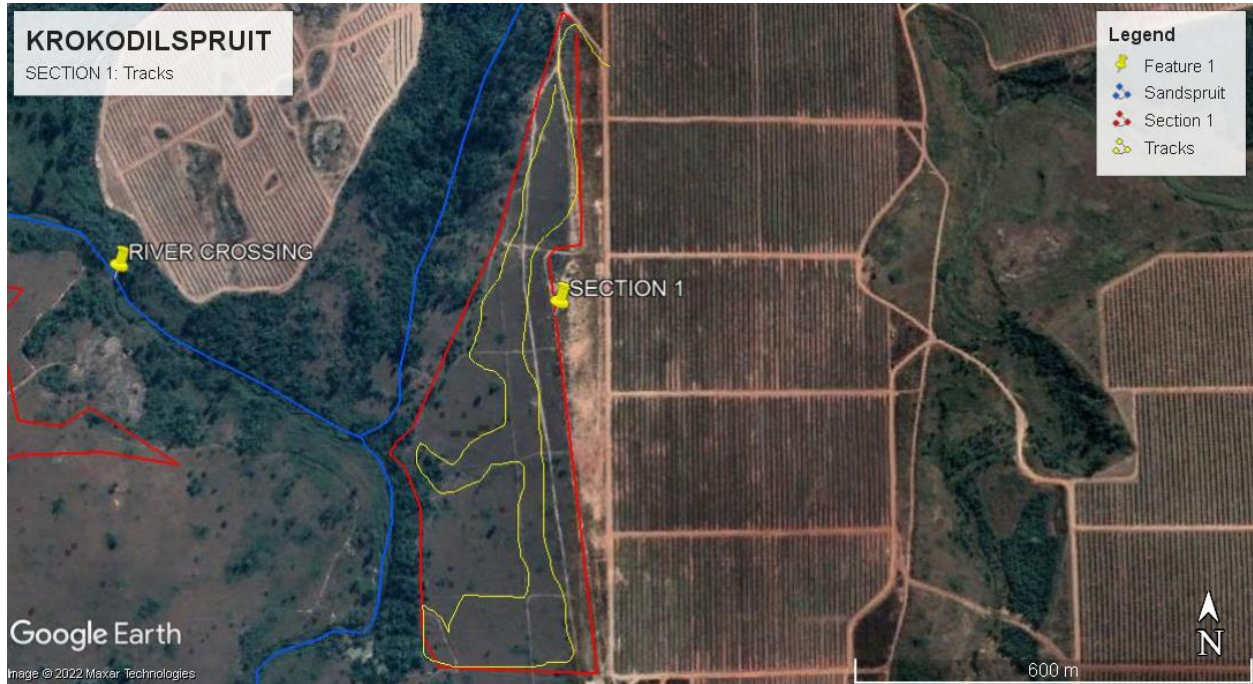
- Personal communication: Dr. Andrew Deacon, 2022-03-28 & 2018-11-22.
- Personal communication: Rhengu Environmental Services, Ralf Kalwa, e-mail access: 2022-03-25.
- Personal communication: Previous owner: Mr. P. Beckenstrater, 2018-10-08.

## **MISCELLANEOUS**

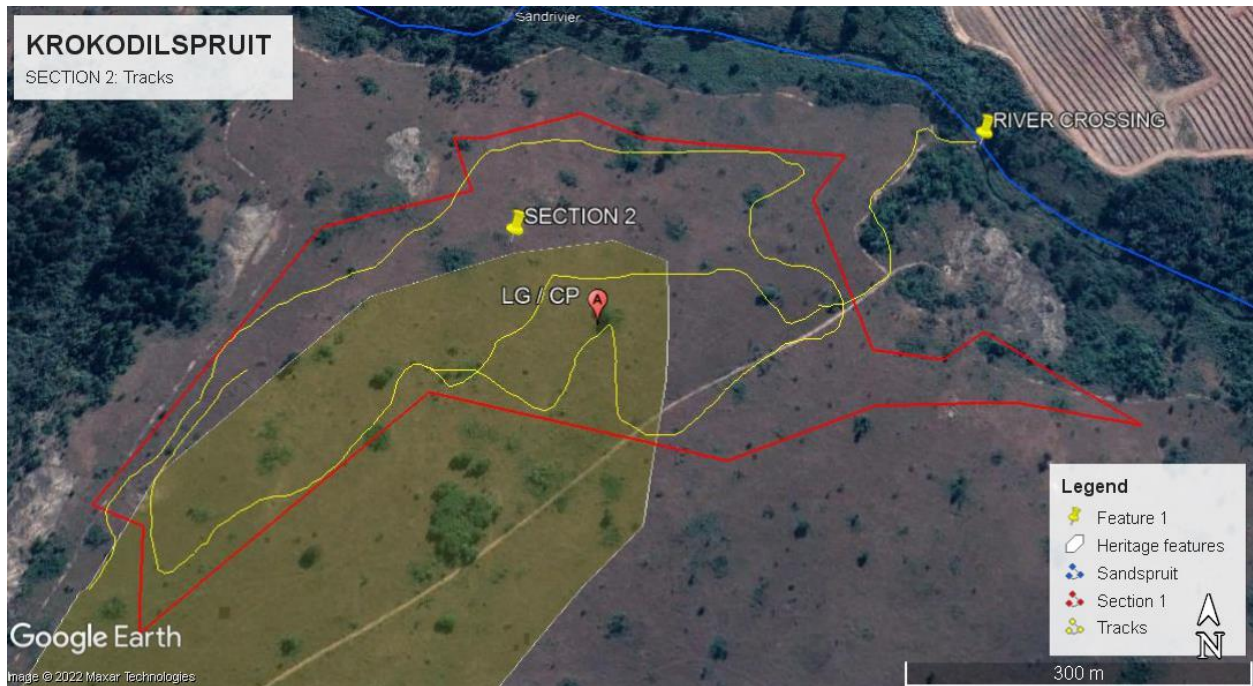
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## APPENDIX 1

### Track and Paths used to access the study area

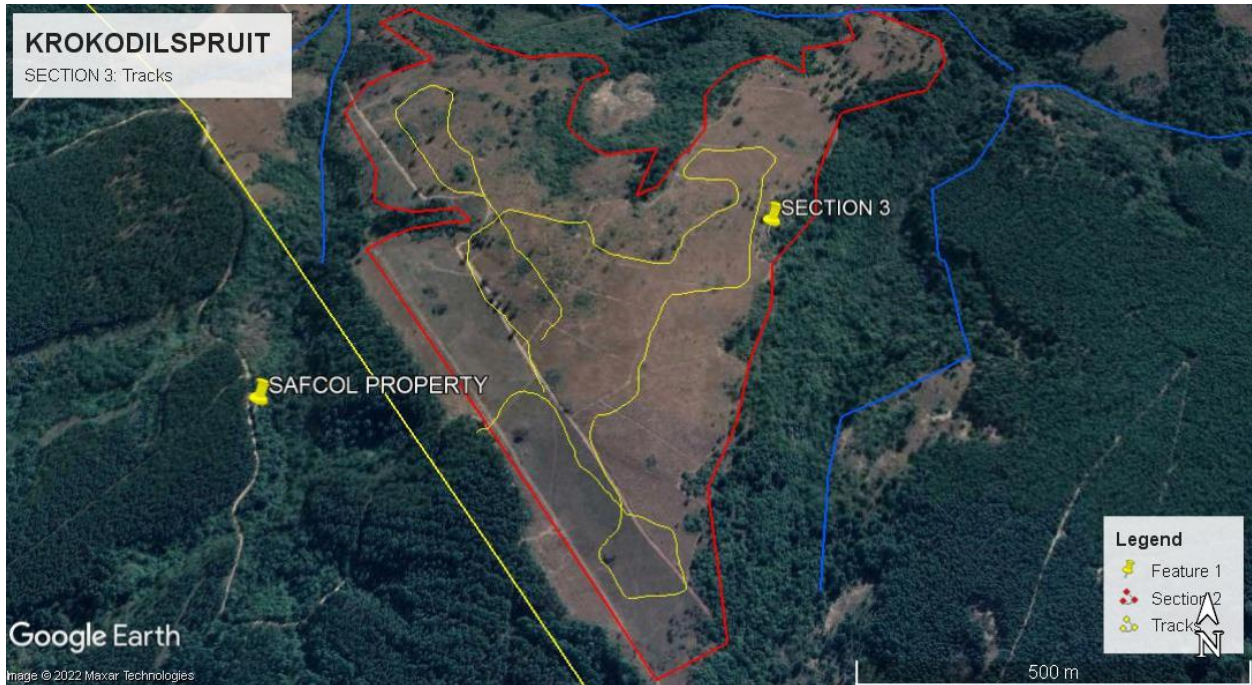


Tracks and paths which were used on Section 1.



Tracks and paths which were used on Section 2 & River Crossing.





Tracks and paths which were used on Section 3.