


APPENDIX 5.2
BASELINE HERITAGE
SPECIALIST INPUT



HERITAGE IMPACT ASSESSMENT SCOPING REPORT

Prepared for

Proposed Skeifontein Photovoltaic Power Plant and Power Lines, near Postmasburg, Northern Cape

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Physical Address of Surveyed Premises	Date (received) by client
Farm Skeifontein 536 (comprising of Skeyfontein Remainder 536; Portion 1 Skeyfontein 536; Portion 2 Skeyfontein 536; and Portion 3 Skeyfontein 536), Northern Cape	2011/12/05 Signed in capacity as  _____

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DETAILS OF SPECIALIST AND DECLARATION OF INTEREST

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Application for authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2010

PROJECT TITLE

Proposed Skeifontein Photovoltaic Power Plant and Power Lines, near Postmasburg, Northern Cape

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4.2 The specialist appointed in terms of the Regulations

I, Elize Becker , declare that --

General declaration:

- I act as the independent specialist in this application;
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- All the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of Regulation 71 and is punishable in terms of section 24F of the Act.



Signature of the specialist:

ENVASS

Name of company (if applicable):

2012 01 10

Date:

1. SPECIALISTS EXPERTISE

The specialist report has been completed by Elize Becker an independent heritage practitioner employed at Environmental Assurance (Pty) Ltd. With Honours degrees in both Archaeology and Anthropology, Elize Becker has been involved in numerous research projects and has trained archaeology students in fieldwork excavations and techniques. As an independent consultant she has undertaken various Heritage Impact Assessments and developed and monitored compliance to a number of Heritage Management plans and programmes.

She has a good knowledge of the various pertinent policies and legislative procedures and has also been involved in permit (research and destruction) application processing, liaison and networking with various developers, authorities, environmental consultants and heritage agencies. Elize has been responsible for the production of presentations to academic organizations and municipal and government departments as well as several publications.

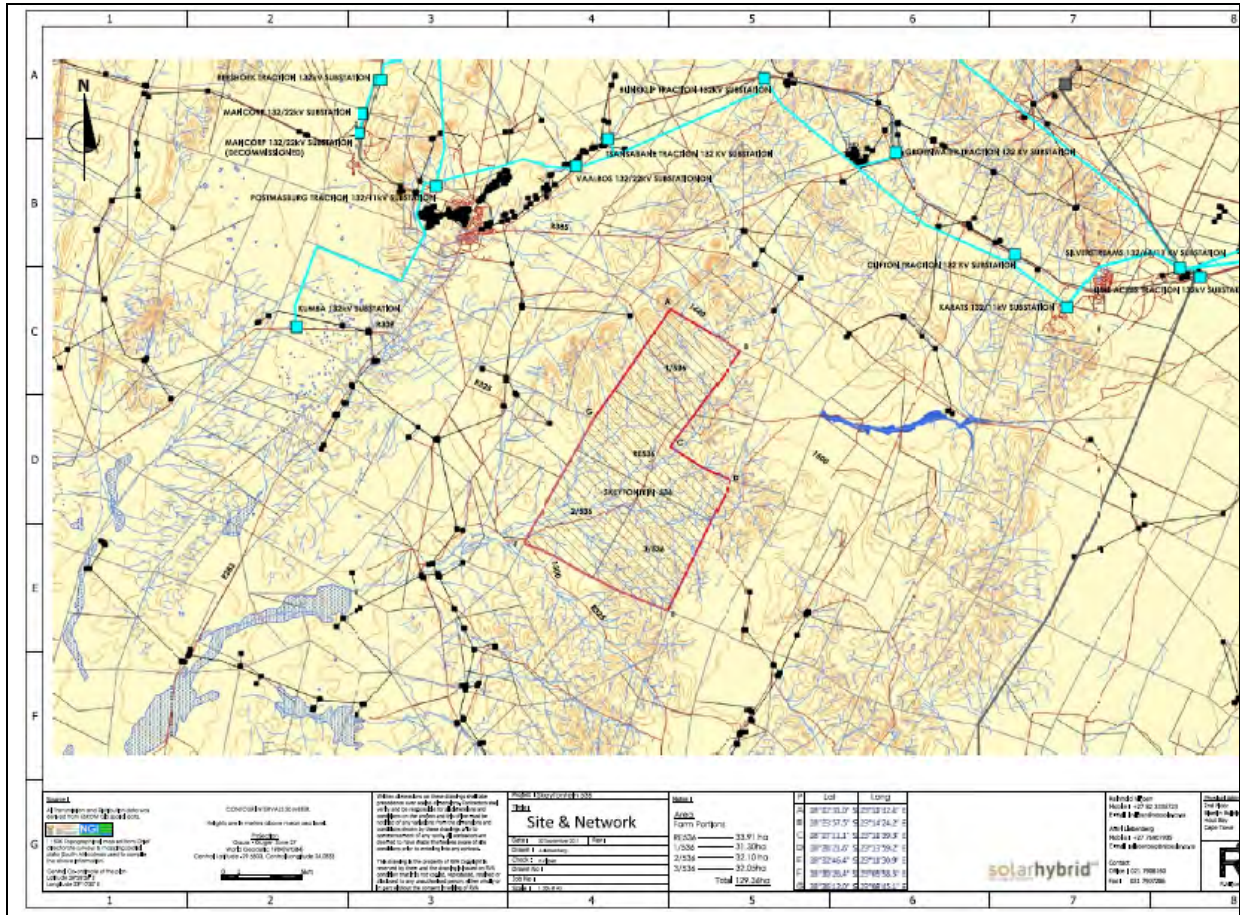
2. PROJECT BACKGROUND

The proposed project would entail the development of a photovoltaic power plant and power lines in 4 phases (± 250 ha each phase) near Postmasburg (see Figure 1 and 2). The proposed project would consist of the following activities:

- a) Foundation footprint (± 5 ha per phase);
- b) Access Roads and parking areas (internal access roads would be 7m wide);
- c) Infrastructure;
- d) Solar Array Coverage (± 50 ha per phase);
- e) Transmission Lines (steel monopole type; Height of pylons would be 17 to 21m);
- f) Electrical Substation (± 500 m² per phase);
- g) Operations and Maintenance Buildings (± 550 m² per phase);
- h) Security Perimeter Fencing (Perimeter length would be ± 6200 m per phase) and Security Entrance Gate;
- i) Security Lighting;
- j) Gates;
- k) Construction Camp (± 1 ha per phase); and
- l) Lay Down Area (± 5000 m² per phase).

FIGURE 1: LOCALITY AND PHASES

1.1 Locality Map



1.2 Phases

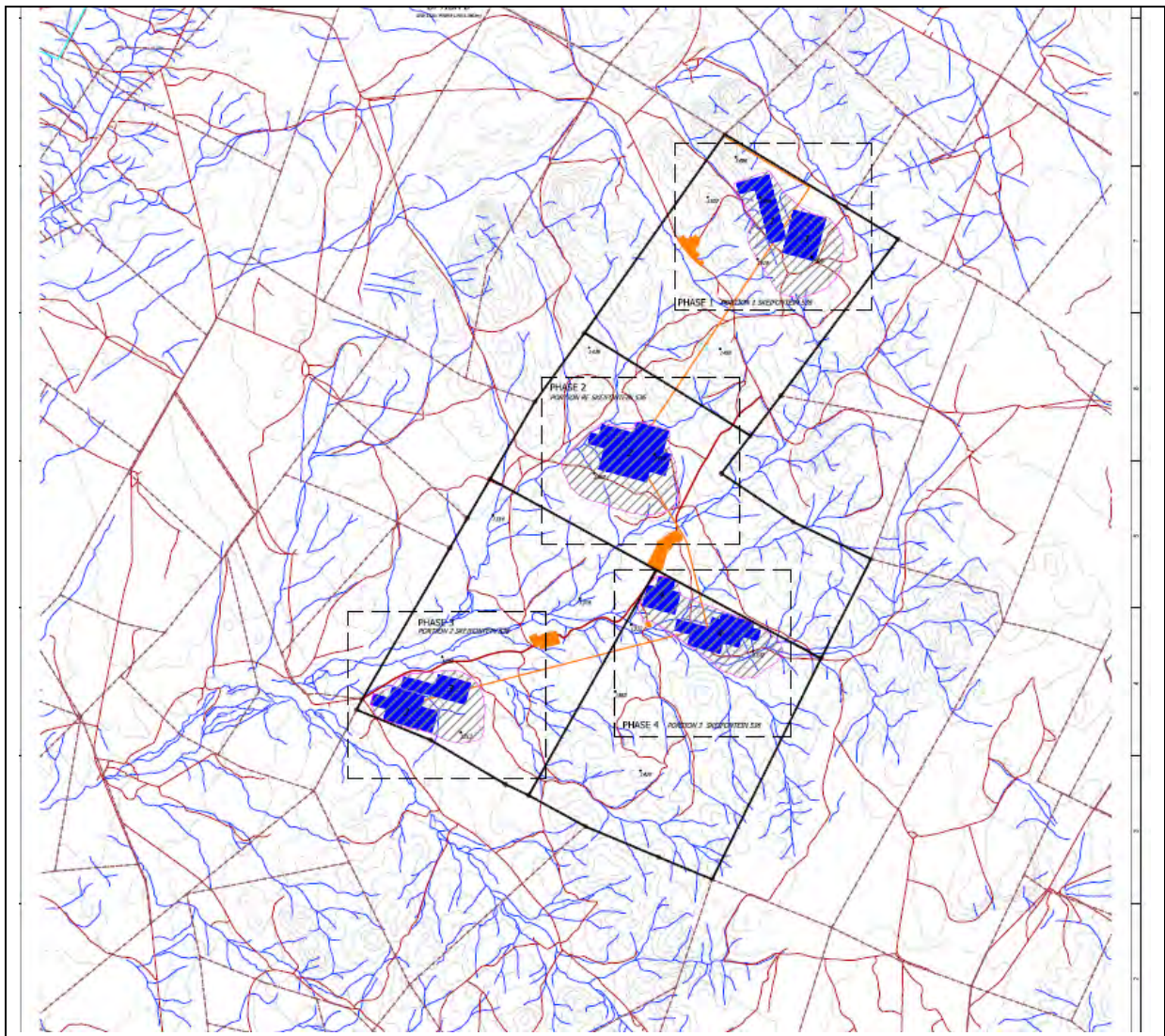
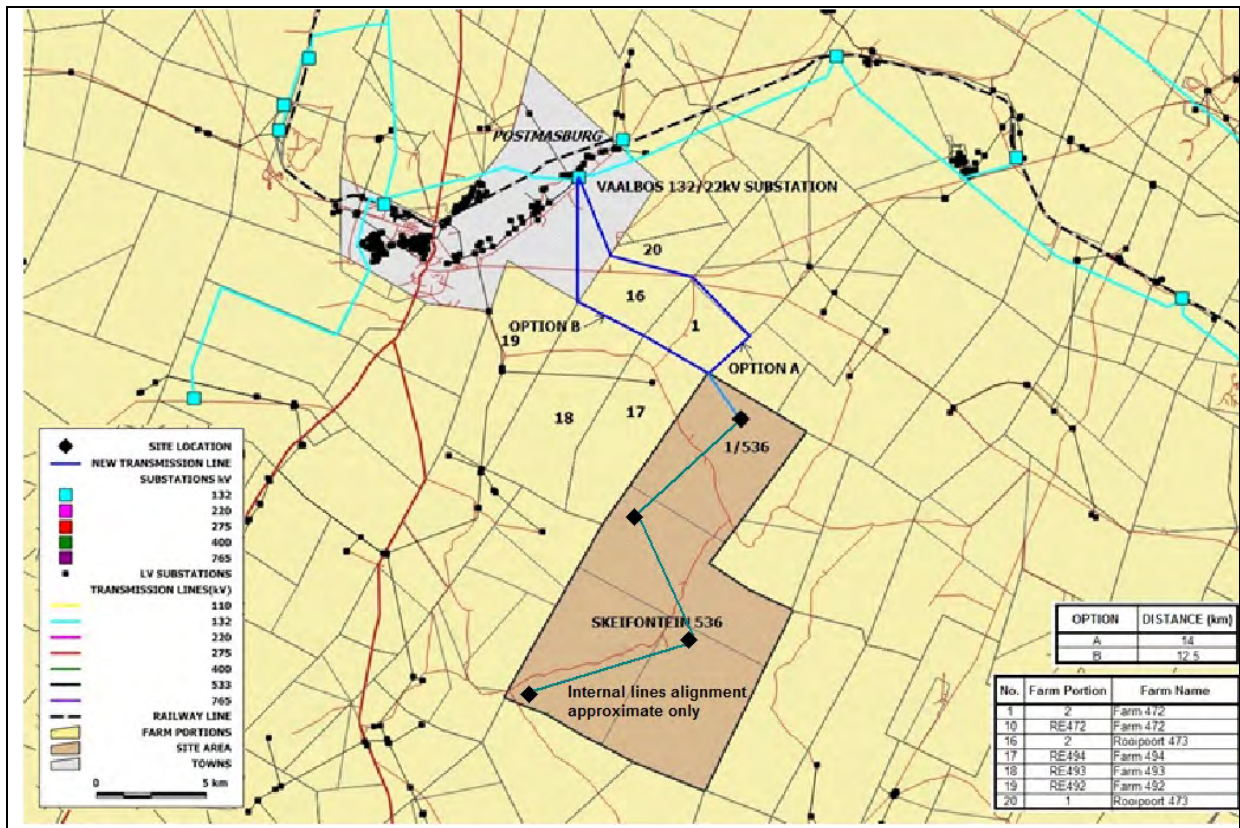


FIGURE 2: POSITION OF POWER LINES



3. SURVEY METHODOLOGY AND HERITAGE LEGISLATION

A site survey was undertaken by Ms Elize Becker (Heritage Resources Practitioner) on the 21 to 23rd of November 2011. The survey provided insight into the type of environment, position of the site, the surrounding activities and the possible living heritage resource issues related to the proposed development. The following steps were taken to obtain a better understanding of the cultural heritage of the area and the receiving environment:

- A project orientation process was undertaken at a desktop level to obtain a better understanding of the nature of the activity and the extent of the development proposal.
- A review of the technical proposal was undertaken. CCA Environmental provided information with regard to the extent of the site and information regarding the position of the proposed development alternatives.
- A desktop investigation into the history of the area was undertaken including a literature review, internet search and liaison with the South African Heritage Resources Agency (SAHRA) and McGregor Museum, Kimberley.
- The compilation of the Scoping Report and the determination of a way forward.

4. DEFINITIONS, ACRONYMS AND ABBREVIATIONS

Archaeological sites are places where people lived and left evidence of their presence in the form of artefacts, food remains and other traces such as rock paintings or engravings, burials, fireplaces and structures.

Aim of Conservation: The aim of conservation is to preserve, retain or recover the cultural interest of a place, and must include provision for its maintenance and its future.

Context: Historically valuable places do not consist of buildings alone. Conservation of such places requires the maintenance of appropriate visual settings and contexts. New construction, demolition or modification adversely affecting the setting, and environmental intrusions which adversely affect enjoyment or appreciation of the place, should be excluded.

Cultural Significance is the aesthetic, historical, scientific and social value for past, present and future generations.

Determination of Cultural Significance: Cultural significance should be determined by analysis of the evidence gathered and, as far as possible, in consultation with a range of parties, including the general public, local communities, cultural bodies and accredited experts on conservation and related issues.

Graves, burial sites, war memorials and monuments are tangible and symbolic reminders of our turbulent history. Graves are architectural examples of space where we transcend the historical past.

Historic means significant in history.

Historical means belonging to the past.

SAHRA: South African Heritage Resources Agency.

Minimal Intervention: Conservation is based on respect for the existing fabric and should involve the least possible intervention. It should not distort the evidence revealed in the fabric.

Place means site, area, building or other work, group of buildings or other works, together with pertinent contents, surroundings and historical and archaeological deposits.

Social Value embraces the qualities, for which a place has become a focus of spiritual, political, national, or other cultural sentiments to a majority or minority group.

5. HISTORICAL BACKGROUND

The archaeological landscape is divided between different time periods namely the Early Stone Age that commenced 1.5 million to 250 000 years ago, the Middle Stone Age that commenced 250 000 years ago and the Later Stone Age that roughly commenced at 30 000 years ago. Rock Art is mostly associated with the Later Stone Age Time Period. The colonial period or historical – archaeological events are associated with the last 500 years.

a) KHOIKHOI HISTORY

During the 17th and 18th centuries the European settlers invaded most of the Khoikhoi and San inhabited land. The settlers used fire arms and horses that enabled them to take land from the Khoikhoi. The settlers took not only the land, but also the water resources that were necessary for survival.

The Khoikhoi and San were the first pre-colonial people of southern Africa that experienced the impact that the European settlers had on the local communities. The decline of the Khoikhoi people resulted in a scholarly investigation of the impact that the colonial area had on the daily lifestyle of the impacted communities. The Khoisan and Khoikhoi inhabited an area that is largely arid with striking mountains and vast plains. Low and unreliable rainfall resulted in water shortages, especially in the interior. The Khoikhoi pastoralists inhabited land *via* practicing an extensive form of transhumant pastoralism. They followed the rainfall areas with their cattle and sheep. Various “kraals” were developed to effectively create resources at the various dwellings. The groups migrated in bands within scattered territories to develop a complex periodic dispersal pattern. The patterns were part of a seasonal character with individuals that owned their own stock, but land and water were of communal use. The use of land for a short period of time allowed for the veld to gain health again and be regenerated.

The idea that individuals could gain exclusive rights to land and water was unknown to the Khoikhoi people (Guelke L and Shell Robert, 1992, Landscape of Conquest: Frontier Water Alienation and Khoikhoi Strategies of Survival, 1652 – 1780, *Journal of Southern African Studies*, Vol. 18, No. 4, pp. 803 – 824).

Peter Potter, the VOC (*Vereenigde Oost-Indische Compagnie*) surveyor commenced to survey the communal land that made the Khoikhoi communities nervous. The European intruders were there to stay and the Khoikhoi people decided to take up arms for protection.. The Khoikhoi communities were included as part of a slave trade development and even free African groups were forced into military action. The Europeans hunted down “runaway slaves”, retrieved stolen cattle, and took revenge on Khoikhoi people that came too close to the European “owned” water resources.

The movement of the trekboers into the inner land areas resulted in the expansion of freehold farms (Guelke and Shell, 1992). Settlers changed grazing and hunting privileges into loan farms. The areas were demarcated on grazing permits, salt licenses or loan farms. It resulted in settlers having full control of water originating or flowing onto their properties.

As the Trekboer communities increased, the more strategic land was privatized, which left the Khoikhoi people without land. The Khoikhoi people moved further to identify vacant land, but unfortunately in the end they were forced to work as labourers on the trekboer's farms.

b) IRON AGE ARCHAEOLOGICAL BACKGROUND

Stone ruins that indicate the occurrence of Iron Age settlements in the Northern Cape exist. The assessment of the contact between the Stone Age and Iron Age people is of importance in order to understand the nature of the impact it had on both societies. When different communities commence living next to each other, they commence accepting each other's traditions. The result is that cultural attributes are taken over by both sides of the cultures and it may result in the development of a new cultural phenomenon. One of the most significant indications of the occurrence of Iron Age people in the Northern Cape is the fact that in 1681, Simon Van der Stel was told by Nama chiefs of a country where metal looking material occurred (Humphreys A. J. B., 1976, Note on the Southern Limits of Iron Age Settlement in the Northern Cape, *The South African Archaeological Bulletin*, Vol. 31, No. 121 / 122, pp. 54-57). This reference also relates to trade that existed in the Postmasburg area. Trade occurred between the Thlaping Tswana people and the Khoikhoi people. It means that the Tswana traded as far south as the Orange River at least the same time as the Europeans at the Cape (Humphreys, 1976).

Evidence exists that the Thlaping used to be settled in the Postmasburg – Nokana areas prior to 1800 (Humphreys, 1976). A number of stone ruins are present between Taung and Kuruman that fall within the 1800 to 1820 time period.

c) HISTORICAL

Postmasburg played a strategic role during the Anglo-Boer war to provide ammunition and horses to the Boer forces. Postmasburg acted as an important region that linked the Boer forces from Transvaal to the Cape Colony south of the Orange River (Snyman P H R, 1985, Postmasburg en die tweede Vryheidsoorlog, *The South African Military Society*, Vol. 6 No. 6, pp 1-8). The Boer forces made an effort to prevent the British from settling in the Northern Cape. In October 1899, the Boer forces settled in Griqualand - West and Brits – Bechuanaland. Jan Jordaan and J B M Hertzog claimed Postmasburg to be a Boer territory.

Sir Alfred Milner, British High Commissioner of the Cape requested Sir Charles Warren to include Griqualand - West and Brits – Bechuana Land under British rule again. Warren moved

into the Boer territory from the Belmont District and by the end of May 1900 he reclaimed land as far as a place named Faber (Snyman PHR , 1985, Postmasburg en die Tweede Vryheidsoorlog, *Military History Journal*, pp. 1-8). In May 1900 the Boers made an effort to attack the British, but after an intense battle decided to escape. Warren and Hughes marched to Griqualand – West and Postmasburg during June 1900. The rebels were placed in the Griquatown jail, but during 1901 the Boer forces were active again.

d) RESETTLEMENT HISTORY

During the 1930's some of the Tswana communities consisted of a wealth of cattle that could be used to gain capital and purchase additional land. The Khoisan and Khoikhoi communities were not so lucky, because they were mostly used as labourers at various Tswana and European households (Wylie D, 1989, The Changing Face of Hunger in Southern African History 1880 – 1980, 1989, pp. 159-199).

The Northern Cape was subjected to a resettlement program during the apartheid years. Tswana families were divided into the men who had to live in a compound and the women who were sent to a relocation centre (Hallett R, 1984, Desolation on the Veldt: Forced Removals in South Africa, *African Affairs*, Vol. 83, No. 332, pp. 301-320). Between 1960 and 1962 it was estimated that an average of 834,000 people were affected by the Group Areas Act (Hallett, 1984).

The local Tswana people provided information in terms of the forced removal experiences they had before and during the apartheid years. The colonial people claimed an intensive amount of land for themselves that resulted in the local inhabitants being forced to work as labourers at the white farmers claimed properties. During the apartheid years, the local communities were forcefully removed to Kuruman and surrounding areas. It was a time of great sadness, specially because the communities had to move away from properties where their grandfathers, fathers, grandmothers and mothers were buried. After the great struggle for freedom, they were allowed to return to the land of where the great Kgosi's are buried. Although the land was returned to the communities, they did not receive any further assistance to be able to create a sustainable lifestyle. At the moment the government is identifying various methods to be able to uplift these resettled communities and assist them in developing infrastructure where needed. The fact that the local inhabitants are living close to their ancestors graves again, plays an in depth role in finding their historical identify again.

e) ROCK ART / ENGRAVINGS

Rock engravings are mostly situated in the semi-arid plateau with most of these engravings situated at the Orange – Vaal basin, Karoo and Namibia. The upper Vaal, Limpopo basin and eastern Free State regions have a small quantity of rock engravings as well. Some sites have examples of rock engravings and rock paintings close to each other. These examples occur regularly at the Karoo and Northern Cape regions. Various investigations were undertaken to determine why the different types of rock art occur in such close proximity to each other. One of

the explanations could be the environmental factors that include geology and topography. The general feeling is that rock paintings exist at cave areas and rock engravings at open surface areas. The complex Khoisan population and social organisation could also influence the type and place of where the rock art paintings were created. The Cape interior consists of a technical, formal and thematic variation between and within sites (Morris D, 1988, Engraved in Place and Time: A Review of Variability in the Rock Art of the Northern Cape and Karoo, *The South African Archaeological Bulletin*, Vol. 43, No. 148, pp. 109 – 120). Two major techniques existed namely the incised and pecked engravings (Morris, 1988). Morris (1988) indicated technical and formal characteristics through space and a sharp contrast exists between engravings positioned north of the Orange River that are mostly pecked and those in the Karoo where scraping was mostly used. According to Morris (1988) hairline engravings occur at the North and the South, but they are rare at the Vryburg region. Finger painting techniques mostly occur at the Kuruman Hills, Asbestos Mountains, Ghaap Escarpment, Langeberg, Koranaberg ranges, scattered sites at the Karoo and the Kareeberge (Morris, 1988).

The development petroglyphs (i.e. carving or line drawing on rock) were associated with three different types of techniques, namely incised fine lines, pecked engravings and scraped engravings. According to Peter Beaumont the pecked and scraped engravings at the Upper Karoo are coeval (i.e. having the same age or date of origin) (Beaumont P B et al., 1989, Patterns in the Age and Context of Rock Art in the Northern Cape, *The South African Archaeological Bulletin*, Vol. 44, No. 150, pp. 73-81).

Dating of rock art includes the use of carbonate fraction dating of ostrich eggshell pieces, dating of charcoal and ostrich eggshell at various rock art shelters. Unifacial points, double segments and thin – walled sherds may indicate the presence of the Khoikhoi at the Northern Cape during 2500 BP (years Before the Present) (Beaumont, 1989).

f) ARCHAEOLOGICAL MINES AT POSTMASBURG

Surface occurrence of specularite (i.e. a variety of hematite) and prehistoric specularite workings are known to occur in the Northern Cape. One of these historic mines occurs at Doornfontein near Postmasburg, which dates to 1200 BP (Thackeray A. I. et al., 1983, Excavations at the Blinkklipkop Specularite Mine near Postmasburg, Northern Cape, *The South African Archaeological Bulletin*, Vol. 38, No. 137, pp. 17 -25). Specularite used to be transported in ostrich eggshells and pottery containers (Thackeray, 1983). Various oral accounts indicate that Skeyfontein was visited by Khoi Herding people, Iron Age Tswana and San hunter – gatherers.

g) ORAL HISTORY

This section is a summary of historical data collected during the local community interview held on 22 November 2011, which focused on retrieving social historical data from the landowners,

namely the Skeifontein Community. Skeifontein, Groenwater, Smutsdrift and surrounding areas were part of a restitution claim handed in before 1998, as the communities were forcefully removed during the apartheid years (1960's) to Kuruman. During those years the white farmers settled on the properties mentioned above and stayed in various farm houses on a permanent basis. After 1998 the communities applied to return to their descendents properties to be able to live close to their ancestors burials. The white farmers received compensation from government to leave the farms and commence farming in other areas. The first group of Tswana communities moved to their reclaimed lands just after 1998 and stayed within the farm houses to prevent any other groups from moving onto their land. Skeyfontein is the oldest settlement of the three areas historically occupied by the Tswana communities. According to Willem the areas are currently a combination of Griqua, Witbooi, Afrikaners and Tswana communities. Currently the Sibuku Royal family is the most respected community in the region. The Royal Family is one of seven Royal Blood Lines in South Africa and the King of the Sibuku Royal Family is living on Skeyfontein.

6. PURPOSE AND OBJECTIVES

6.1 PROJECT OBJECTIVES

The objective of this Heritage Impact Assessment Scoping Report is to provide a description of the affected environment in terms of heritage resources, to determine if any archaeological features are positioned on site that could be impacted by the proposed layout and suggest any recommendations to mitigate any potential impacts. Archaeological features refer to graves, stone walling, archaeological objects (pottery), rock art, structures older than sixty years and archaeological cultural landscape areas. The objective of the study is to provide the SAHRA with a detailed report of the type of proposed development, if heritage resources are located within the area of impact and recommendations in order to mitigate potential impacts.

6.2 EXPECTED PROJECT ACHIEVEMENTS

The project study expectation is to achieve a clear understanding of the type of development, the exact location of the development and to determine the direct potential impacts it would have on the heritage resources environment.

7. FINDINGS (Listed according to sensitivity)

Please see attachments, Heritage Map (Figure 3) and Attribute Table (Table 1).

7.1 PHASE 3 (Positioned at the entrance) High Heritage Sensitivity

	<p>Dry stone walling associated with typical "kraal" areas. Most of these kraal areas were associated with homesteads and storage rooms.</p>
	<p>Dry stone walling in the process of collapsing. The settlement areas are positioned on community owned land.</p>



Collapsed stone walling.



Encircled stone walling features are positioned on site. The encircled stone walling is positioned in association with other square pattern like structures.



Smaller encircled stone walling areas. It could be associated with smaller livestock, for example chickens.



A possible grave site situated close to a homestead. The grave and homestead are part of a settlement pattern identified close to the proposed development footprint.



A square structure, possibly a living area.



Collapsed stone walling positioned next to the road. The settlement has already been impacted upon when the secondary road was developed.

7.2 PHASE 4 (Positioned next to the fence line) Medium Sensitive



Collapsed stone walling positioned close to a fence line. The fence has already impacted on the structure and a section of the feature has been damaged. This falls outside of the development footprint, but it is still important to indicate that such features occur at the property.



Collapsed stone walling.



Encircled stone walling situated in the close vicinity of square like features.

This feature will not be affected by the proposed development, but provides an indication of the type of archaeological structures that occur.



Encircled stone walling positioned next to the village access road.

It falls outside of the development footprint.

7.3 PHASE 2 (Positioned in close vicinity of leader's burial ground) Medium Heritage Sensitivity



A square pattern like feature identified. The patterns are neatly preserved and form part of an overall settlement layout.

These features will not be impacted upon during the development stages of the project.



Dry stone walling occur at the site. The age of the current vegetation shows that the homestead has been present at the property for a long time.

This feature falls outside of the development footprint area.



Collapsed stone walling, which could have been part of a historical outpost of where livestock were kept. During modern times settlements are still being divided between the residential areas and livestock posts.

These features will not be impacted upon during the development stages of the project.



Collapsed stone walling part of a wider settlement area.

These features will not be impacted upon during the development stages of the project.



Square feature associated with a kraal area.

This feature will not be impacted upon during the development stages of the project.



The site contains scattered stone tool material that varies from Middle Stone Age to Later Stone Age.



Well preserved stone walling. Possibly used for livestock keeping.

7.4 PHASE 1 (Positioned next to river) Low Heritage Sensitivity



The surface material that occur at the site.



The riverbed. This area falls outside of the development footprint site.

7.5. OTHER



An indigenous game played by the local school children. This forms part of the living history of the Skeifontein Community.



Community representative.



Community representative explaining the origin of the Skeifontein community.



The mother, Katriena, of the Sibuko Royal Family. Katriena was married to Piet Sibuko from Rustfontein.



Katriena's brother named Willem. Katriena and Willem's father was called Jan Langeveldt. Jan Langeveldt, a German, married a lady named Johanna who is the mother of Katriena and Willem.



Mr. Smith, a community representative that assisted with community liaison.



The local school on Farm Skeifontein 536. The headmaster assisted with providing historical information related to the development of the Skeifontein community.



Mr. Smith at his family's graveyard. The graveyard is positioned at the first Skeifontein village.

8. HERITAGE SIGNIFICANCE RATING WITHIN THE PROPOSED DEVELOPMENT FOOTPRINT

8.1. THE CRITERIA IN ASSESSING THE SIGNIFICANCE OF ARCHAEOLOGICAL SITES OF IMPORTANCE:

- a) The cultural landscape and nature of the site.
- b) The occurrence of archaeological deposits or in situ archaeological objects.
- c) The historical landscape and geographic environment.
- d) The position of the archaeological site in association with other sites of significance.
- e) The condition of the archaeological site, the immediate threat and conservation value.
- f) The overall characteristics of the site.

The criteria assessment below was extracted from the EIA Regulations 2010 that were published in terms of the National Environmental Management Act (Act No. 107 of 1998). The table below was used to provide a quantitative description of the overall heritage resources significance rating of the *proposed development footprint within each phase*.

Extent	Duration	Intensity	Probability	Weighting Factor	Heritage Sensitivity Rating	Mitigation Efficiency	Heritage Sensitivity After Mitigation
1 Footprint	1 Short Term	1 Low	1 Probable	1 Low	0-40 Low	0.4 High-Medium	0-40 Low
2 Site	2 Short Term-Medium	2 Low-Medium	2 Possible	2 Low to Medium	40-59 Low-Medium	0.6 Medium	40-59 Low-Medium
3 Regional	3 Medium	3 Medium	3 Likely	3 Medium	60-79 Medium	0.8 Low-Medium	60-79 Medium
4 National	4 Long Term	4 Medium - High	4 Highly Likely to Definite	4 Medium to High	80-100 Medium-High	1.0 Low	80-100 Medium to High

Overall heritage significance rating for the proposed development footprint area: medium sensitivity

Individually Phase 3 is of high heritage sensitivity in terms of the indicators stipulated above.

Phase 4 is indicated as of medium heritage sensitivity significance.

Phase 2 of medium heritage sensitivity significance.

Phase 1 of low heritage sensitivity significance.

If a site is of medium sensitivity it allows for the provision of suitable mitigation measures in terms of sampling and further detailed documentation. Significance rating is determined by the independent heritage practitioner of where the professional will indicate to the SAHRA what the most suitable conservation measures will be. This process is in line with the National Heritage Resources Act (No. 25 of 1999) as a guideline and policies developed by the heritage authorities.

9. RECOMMENDATIONS

a) PHASE 1

No Features are under immediate threat of the proposed development. Further mitigation procedures will be identified during Phase 2 of the Heritage Impact Assessment.

b) PHASE 2

No Features are under immediate threat of the proposed development. Further recommendations will be identified during Phase 2 of the Heritage Impact Assessment.

c) PHASE 3

Phase 3 has been identified as a site of high significance in terms of the size of the settlement, the occurrence of various types of built environment features, the possible age of the settlement pattern and the occurrence of a possible grave site. It is recommended that the entire settlement is protected by the implementation of a 50 metre buffer zone.

d) PHASE 4

The stone walling features will not be impacted upon, but it is of importance to mention that these structures occur at the site. Further recommendations will be identified during Phase 2 of the proposed Heritage Impact Assessment.

10. OVERALL SUMMARY OF PROJECT

The overall summary is that the development footprint areas are of medium to high heritage sensitivity / significance. Scattered stone tools have been identified at various places and it is proposed that during Phase 2 of the Heritage Impact Assessment intense sampling is undertaken. Sampling may only take place with a permit received from the heritage authorities. During Level 2 further documentation of the settlement patterns with the associated burials could be undertaken for archival and future research purposes.

The cultural landscape of the development footprint areas would change. The sense of place linked to a *herder* geographic landscape would be impacted upon by the development of the alternative energy solar plants.

It is proposed that a heritage management plan is completed to provide guidance in terms of the continuous protection of the settlement patterns and Stone Age archaeology positioned at the property.

11. CONCLUSION

The proposed development areas fall within a historical – archaeological cultural landscape that is associated with Stone Age, Khoikhoi and Herder settlements, Tswana settlements, European influx and forced removals. The area is vast and an extensive area would be impacted upon by the proposed development. It is, therefore, of importance that a strict heritage management plan is in place if the solar developments are approved.

12. REFERENCES

- Beaumont P B et al., 1989, Patterns in the Age and Context of Rock Art in the Northern Cape, *The South African Archaeological Bulletin*, Vol. 44, No. 150, pp. 73-81.
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- <http://san.org.za/history.php>
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13. AUTHORITIES CONSULTED

- South African Heritage Resources Agency Cape Town - 021 462 4502

Table 1: Skeifontein Heritage Attribute Table

FID	Shape *	TYPE	IDENT	LAT	LONG	Y_PROJ	X_PROJ
460	Point	WAYPOIN	455	-28.390529	23.194302	-28.390529	23.194302
461	Point	WAYPOIN	456	-28.4175	23.198016	-28.4175	23.198016
462	Point	WAYPOIN	457	-28.397527	23.202924	-28.397527	23.202924
463	Point	WAYPOIN	458	-28.397525	23.202533	-28.397525	23.202533
464	Point	WAYPOIN	459	-28.447762	23.178863	-28.447762	23.178863
465	Point	WAYPOIN	460	-28.443996	23.176599	-28.443996	23.176599
466	Point	WAYPOIN	461	-28.443993	23.176602	-28.443993	23.176602
467	Point	WAYPOIN	462	-28.443393	23.176695	-28.443393	23.176695
468	Point	WAYPOIN	463	-28.443393	23.176695	-28.443393	23.176695
469	Point	WAYPOIN	464	-28.504922	23.101057	-28.504922	23.101057
470	Point	WAYPOIN	465	-28.457684	23.182536	-28.457684	23.182536
471	Point	WAYPOIN	466	-28.457687	23.18252	-28.457687	23.18252
472	Point	WAYPOIN	467	-28.476137	23.178598	-28.476137	23.178598
473	Point	WAYPOIN	468	-28.484312	23.171113	-28.484312	23.171113
474	Point	WAYPOIN	469	-28.494852	23.138717	-28.494852	23.138717
475	Point	WAYPOIN	470	-28.494719	23.138646	-28.494719	23.138646
476	Point	WAYPOIN	471	-28.494578	23.138229	-28.494578	23.138229
477	Point	WAYPOIN	472	-28.493102	23.137895	-28.493102	23.137895
478	Point	WAYPOIN	473	-28.49775	23.124433	-28.49775	23.124433
479	Point	WAYPOIN	474	-28.497845	23.124455	-28.497845	23.124455
480	Point	WAYPOIN	475	-28.497939	23.124452	-28.497939	23.124452
481	Point	WAYPOIN	476	-28.497938	23.124357	-28.497938	23.124357
482	Point	WAYPOIN	477	-28.498001	23.124837	-28.498001	23.124837
483	Point	WAYPOIN	478	-28.498241	23.12448	-28.498241	23.12448
484	Point	WAYPOIN	479	-28.498237	23.124165	-28.498237	23.124165
485	Point	WAYPOIN	480	-28.498767	23.123465	-28.498767	23.123465
486	Point	WAYPOIN	481	-28.498955	23.123368	-28.498955	23.123368
487	Point	WAYPOIN	482	-28.499049	23.12337	-28.499049	23.12337
488	Point	WAYPOIN	483	-28.499132	23.123395	-28.499132	23.123395
489	Point	WAYPOIN	484	-28.499146	23.123229	-28.499146	23.123229
490	Point	WAYPOIN	485	-28.499044	23.123184	-28.499044	23.123184
491	Point	WAYPOIN	486	-28.498547	23.123174	-28.498547	23.123174
492	Point	WAYPOIN	487	-28.49938	23.123777	-28.49938	23.123777
493	Point	WAYPOIN	488	-28.499686	23.124175	-28.499686	23.124175
494	Point	WAYPOIN	489	-28.500851	23.124932	-28.500851	23.124932
495	Point	WAYPOIN	490	-28.501223	23.124247	-28.501223	23.124247
496	Point	WAYPOIN	491	-28.50303	23.107261	-28.50303	23.107261
522	Point	WAYPOIN	CIRCLE PATTERN	-28.499065	23.122947	-28.499065	23.122947
525	Point	WAYPOIN	COLLAPSED ST	-28.484193	23.170607	-28.484193	23.170607
526	Point	WAYPOIN	COLLAPSED STONE	-28.499311	23.123255	-28.499311	23.123255
527	Point	WAYPOIN	COLLAPSED STRUCTURE	-28.497451	23.124751	-28.497451	23.124751
528	Point	WAYPOIN	COLP	-28.484199	23.171263	-28.484199	23.171263
529	Point	WAYPOIN	COM2	-28.474499	23.177531	-28.474499	23.177531
530	Point	WAYPOIN	COMMUNITY	-28.490864	23.149484	-28.490864	23.149484
547	Point	WAYPOIN	DRY STONEWALL	-28.497527	23.12461	-28.497527	23.12461
548	Point	WAYPOIN	DRYSTONE	-28.455166	23.185262	-28.455166	23.185262
567	Point	WAYPOIN	EST HANDAXE	-28.477898	23.181822	-28.477898	23.181822
578	Point	WAYPOIN	FLINTS	-28.494412	23.138161	-28.494412	23.138161
619	Point	WAYPOIN	HANDAX	-28.448228	23.175725	-28.448228	23.175725
620	Point	WAYPOIN	HANDAXES	-28.448508	23.177874	-28.448508	23.177874
673	Point	WAYPOIN	KOOK AREA	-28.45392	23.182896	-28.45392	23.182896
686	Point	WAYPOIN	LOWER VALLEY CLEAVER	-28.448792	23.17579	-28.448792	23.17579
694	Point	WAYPOIN	MIDDLE	-28.446545	23.178738	-28.446545	23.178738
736	Point	WAYPOIN	OLD HOMESTEAD	-28.492589	23.138282	-28.492589	23.138282
737	Point	WAYPOIN	OLD KRAAL	-28.499282	23.123281	-28.499282	23.123281
749	Point	WAYPOIN	OUTCROPS	-28.449028	23.177438	-28.449028	23.177438
791	Point	WAYPOIN	RIVER	-28.397479	23.204505	-28.397479	23.204505
812	Point	WAYPOIN	SETTLE1	-28.45921	23.181701	-28.45921	23.181701
825	Point	WAYPOIN	Skeifontein Area 1	-28.402198	23.208365	-28.402198	23.208365
826	Point	WAYPOIN	Skeifontein Area 2	-28.44998	23.167488	-28.44998	23.167488
827	Point	WAYPOIN	Skeifontein Area 3	-28.506384	23.111349	-28.506384	23.111349
828	Point	WAYPOIN	Skeifontein Area 4	-28.489781	23.18677	-28.489781	23.18677
832	Point	WAYPOIN	SMALL STOCK	-28.498925	23.122912	-28.498925	23.122912
834	Point	WAYPOIN	SQUARE WALL	-28.457236	23.181246	-28.457236	23.181246
857	Point	WAYPOIN	STONEwall1	-28.458172	23.180918	-28.458172	23.180918
858	Point	WAYPOIN	STONEWALL2	-28.459532	23.18166	-28.459532	23.18166
861	Point	WAYPOIN	STOREROOM	-28.50283	23.107421	-28.50283	23.107421
865	Point	WAYPOIN	STRUCTURE	-28.494579	23.138228	-28.494579	23.138228
878	Point	WAYPOIN	TOOLS	-28.476163	23.17741	-28.476163	23.17741

Skeifontein Heritage

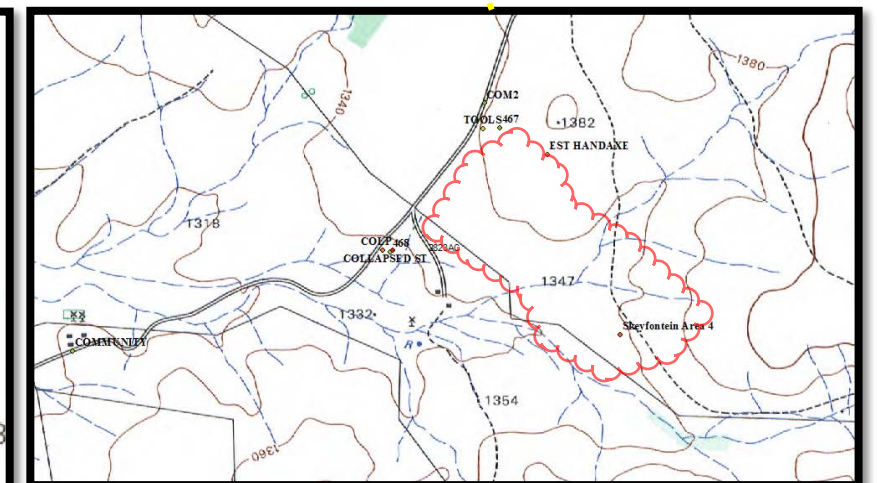
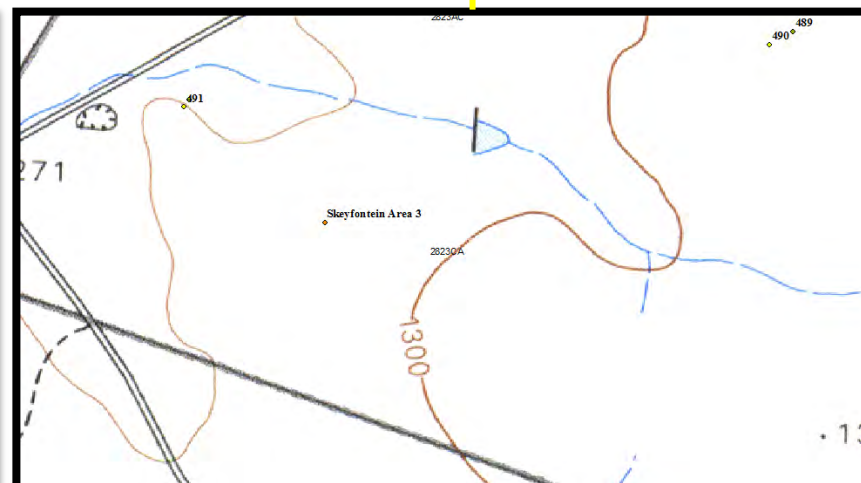
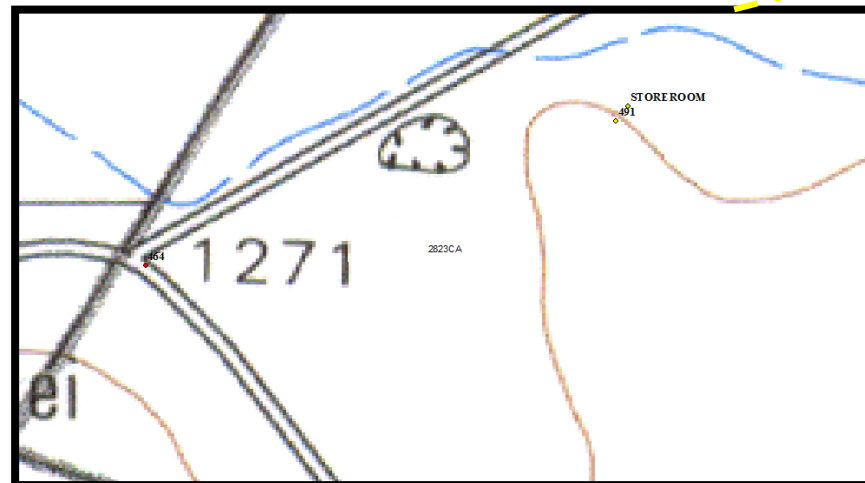
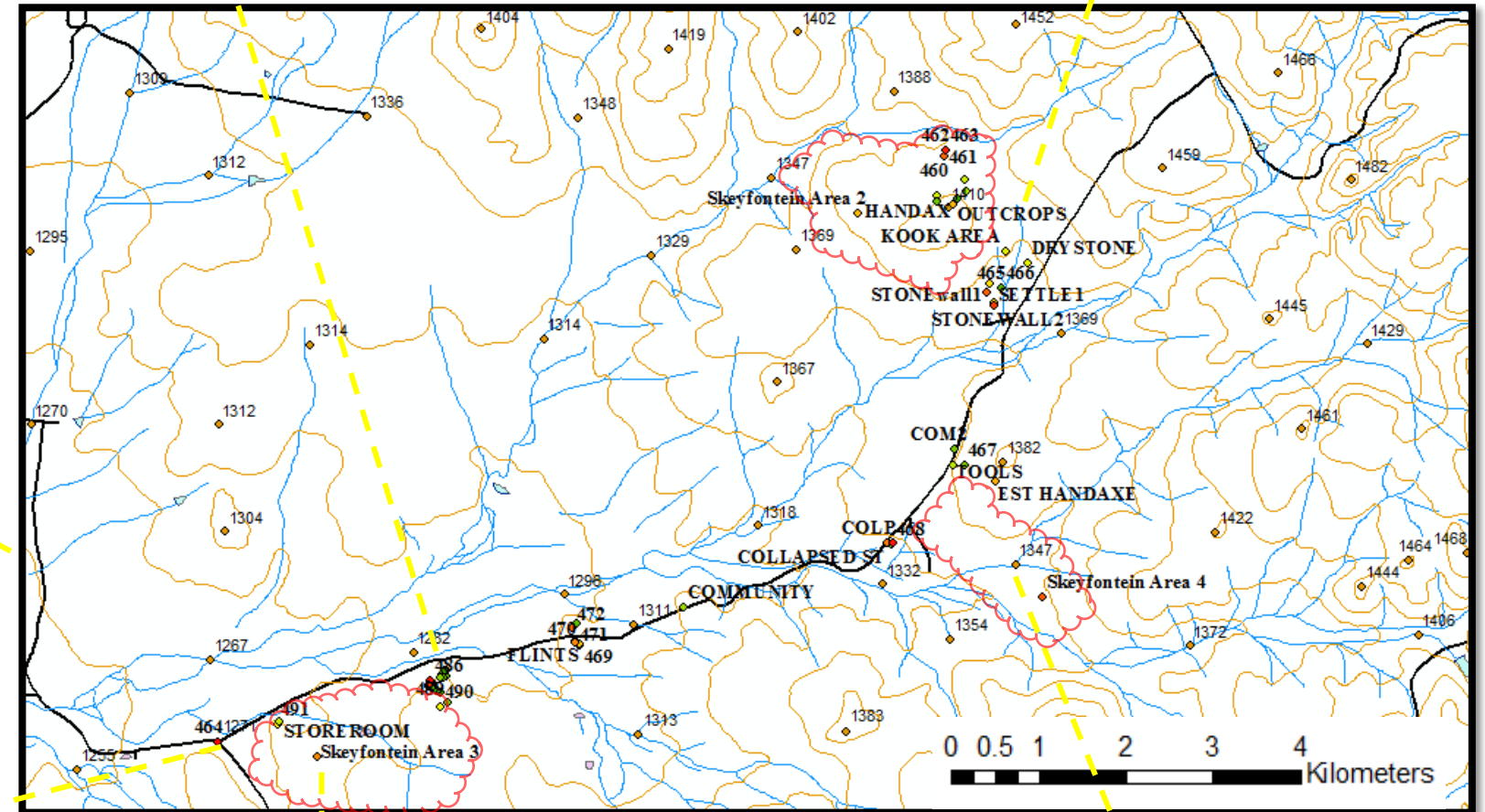
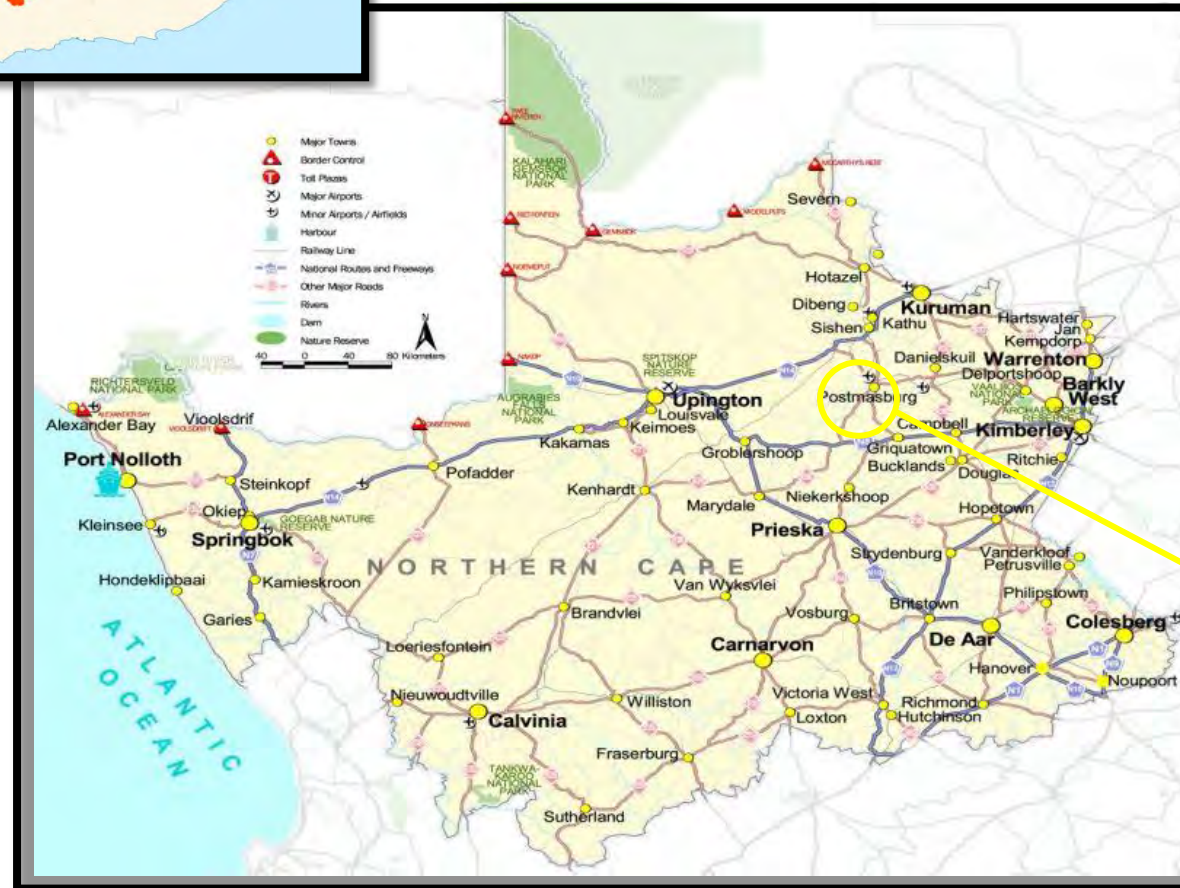
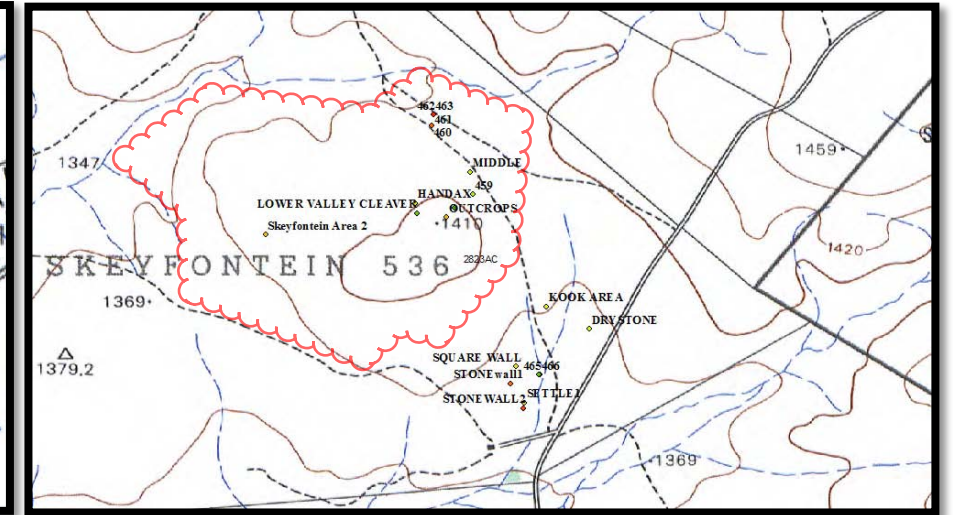
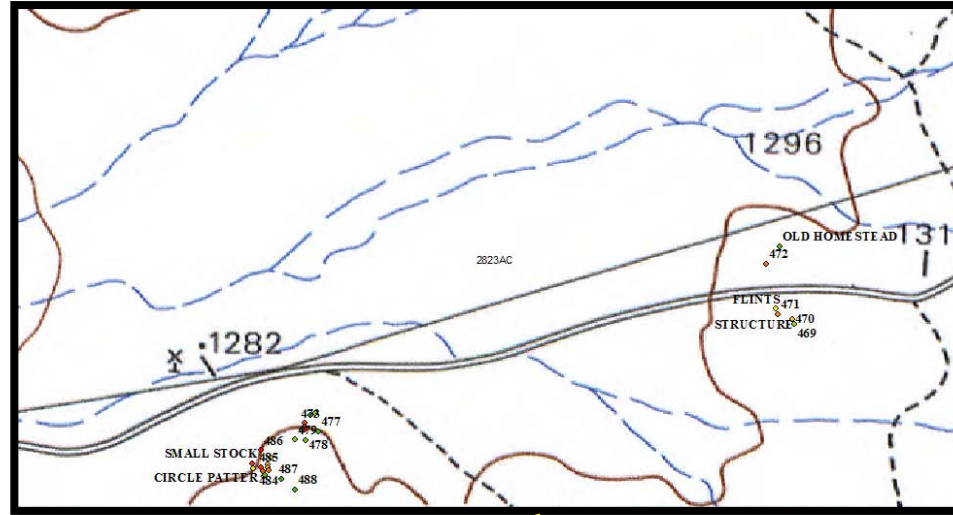


Figure 3 Map of cultural heritage elements on Farm 536, Skeifontein.